

CARNARVONSHIRE
COMBINED SANITARY DISTRICTS.

REPORT

FOR THE YEAR ENDING DECEMBER 31st, 1895,

BY

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MEDICAL OFFICER OF HEALTH.

CARNARVON:

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TO THE
*Joint Committee of the Carnarvonshire
Combined Sanitary Districts.*

GENTLEMEN,—

I have the honour of submitting to you my Annual Report upon the health of sixteen Sanitary Districts in Carnarvonshire, and of eight Sanitary Districts in the Counties of Anglesey, Merioneth, and Denbigh. These twenty-four districts comprise the same area as the fifteen districts which in 1876 originally formed the Carnarvonshire Combined Districts. The nine new districts have been formed by Provisional Orders from time to time, and also by the coming into operation of the Local Government Act of 1894.

I have to point out that the Urban District of Festiniog has recently severed its connection with Carnarvonshire in sanitary administration, so that now there remain twenty-three districts.

I am, Gentlemen,

Your obedient Servant,

P. FRASER.

Carnarvon,

March, 1896.

THE SANITARY DISTRICTS AS A WHOLE.

I.—AREA AND POPULATION.—The total area of the districts, now divided into twenty four, owing to the operation of the Local Government Act, 1894, instead of nineteen as previously, is 584,435 acres. Of this area the eleven Rural Districts contain 536,097 acres, and the thirteen Urban Districts 48,338 acres.

The total population of the districts at Midsummer, 1895, estimated on the assumption that the population has moved since 1891 at the same rate and in the same direction as in the previous ten years, was 163,863.

II.—BIRTHS AND BIRTH-RATE.—During 1895, the number of births registered was 4339, which number was at the rate of 26·4 per 1000 of population. The birth-rate during 1894 was 25·7 per 1000. From the Registrar General's returns we find that the average birth-rate for England and Wales during 1895 was 30·3 per 1000 of population.

III.—DEATHS AND DEATH-RATE.—The number of deaths registered during the year was 3226. This number was at the rate of 19·6 per 1000 persons living, being 1·8 per 1000 higher than the general death-rate during 1894. The average death-rate for England and Wales during 1895 was 18·7 per 1000 persons living.

IV.—ZYMOTIC DEATH-RATE.—To the principal Zymotic diseases were attributed 157 deaths, as follows:—

53	attributed to	Diphtheria.
41	„	„ Diarrhoea.
31	„	„ “Fever.”
15	„	„ Whooping Cough.
11	„	„ Scarlet Fever.
6	„	„ Measles.
0	„	„ Smallpox.

These 157 deaths were at the rate of 0·95 per 1000 of population. The Zymotic mortality in 1894 was 1·0 per 1000.

The Zymotic mortality for England and Wales during 1895 was 2·12 per 1000 of population.

The following table shows the death-rate per 1000 of population from each of the principal Zymotic diseases in the Combined Districts as compared with England and Wales:—

	Seven principal Zymotics.	Smallpox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough	Fever.	Diarrhoea.
England and Wales, 1895	2 12	0·007	0·36	0·14	0·25	0·30	0·17	0 83
Carnarvonshire, etc., Districts, 1895	0·95	0	0·03	0·06	0·32	0·09	0·18	0 25
Do. Do., 1894 ..	1·00	0	0·07	0·21	0·09	0·26	0·14	0·18

V.—INFANTILE MORTALITY.—Among infants under one year of age there were 675 deaths. This was in the proportion of 155 per 1000 registered births as compared with 130 per 1000 which was the proportion in 1894. The Infantile Mortality in England and Wales in 1895 was 161 per 1000 registered births.

VI.—MORTALITY AMONG PERSONS AGED 65 AND UPWARDS.—There were 1041 deaths among persons at this period of life, which number was at the rate of 6·3 per 1000 of population. During 1894, the death rate at this age period was 5·6 per 1000 of population.

VII.—PHTHISIS DEATH-RATE.—Phthisis was the cause of 288 deaths, which number is at the rate of 1·7 per 1000 of population. The death-rate from Phthisis in 1894 was 1·8 per 1000.

VIII.—DEATH-RATE FROM THE CHIEF RESPIRATORY DISEASES.—The chief Respiratory Diseases were the cause of 422 deaths, or at the rate of 2·5 per 1000 of population. During 1894 the death-rate from these diseases was 2·3 per 1000.

URBAN AND RURAL DISTRICTS COMPARED.

I.—BIRTH-RATE.—In the eleven Rural Districts, with an estimated population of 92,950, there were registered during the year 2368 births, or at the rate of 25·4 per 1000 of population.

In the thirteen Urban Districts, with an estimated population of 70,913, there were registered 1971 births, or at the rate of 27·7 per 1000 of population.

In 1894, the Rural and Urban birth-rates were respectively 25·7 and 25·6 per 1000 of population.

II.—DEATH-RATE.—In the Rural Districts, 1793 deaths were registered from all causes, which number is at the rate of 19·2 per 1000 persons living.

In the Urban Districts, 1433 deaths were registered, being at the rate of 20·2 per 1000 persons living.

In 1894, the Rural and Urban death-rates were respectively 17·8 and 17·9 per 1000 persons living.

III.—ZYMOTIC MORTALITY.—The seven principal Zymotics were the cause of 84 deaths in the Rural Districts, which number is at the rate of 0·90 per 1000 of population.

In the Urban Districts there were 73 deaths, or at the rate of 1·02 per 1000 of population.

During 1894, the Zymotic Mortality, in the Rural and Urban Districts was 1·05 and 0·93 per 1000 of population respectively.

IV.—INFANTILE MORTALITY.—In the Rural Districts, among infants under one year of age, there were 352 deaths, which number is in the proportion of 148 per 1000 registered births.

In the Urban Districts, there were 323 deaths of infants under one year of age, or in the proportion of 163 per 1000 registered births.

In 1894, the Infantile Mortality in the Rural and Urban Districts was respectively 118 and 146 per 1000 registered births.

V.—DEATH-RATE AMONG PERSONS AGED 65 AND UPWARDS.—In the Rural Districts, there were 647 deaths of persons at this age period, being at the rate of 6·9 per 1000 of population.

In the Urban Districts, there were 394 deaths, or at the rate of 5·5 per 1000 of population.

During 1894, the mortality among aged persons was 6·2 and 4·8 per 1000 respectively.

VI.—PHTHISIS DEATH-RATE.—In the Rural Districts, Phthisis was the cause of 165 deaths, or at the rate of 1·7 per 1000 of population.

In the Urban Districts the number of deaths caused by Phthisis was 123, also at the rate of 1·7 per 1000 of population.

During 1894, the Phthisis death-rate in the Rural and Urban Districts was respectively 1·8 and 1·7 per 1000 of population.

VII.—DEATH-RATE FROM THE CHIEF RESPIRATORY DISEASES.—The chief Lung diseases were the cause of 213 deaths in the Rural Districts, or at the rate of 2·2 per 1000 of population.

In the Urban Districts there were 209 deaths caused by these diseases, or at the rate of 2·9 per 1000 of population.

During 1894, the death-rate from these diseases in the Rural and Urban Districts was 2·1 and 2·5 per 1000 respectively.

From the vital statistics of the year we arrive at the following conclusions:—

1. The birth-rate of the Cornwallshire Districts in 1895 was considerably lower than that of England and Wales generally. A slight rise—0·7 per 1000 of population—has taken place in the birth-rate as compared with that of 1894, which rise is identically the same in England and Wales.

The birth-rate in the Rural Districts shews a slight lowering—0·3 per 1000—as compared with the previous year, but a rise in the Urban birth-rate of 2·1 per 1000 more than balances this.

2. The general death-rate in 1895 was higher than the average for England and Wales, but was a slightly closer approximation to it than in 1894. In 1894 the average for England and Wales was 1·2 per 1000 lower than the average for the Combined Districts, while in 1895 it was only 0·9 per 1000 lower. The rise in the general death-rate as compared with that of 1894 is mostly contributed to by the Urban Districts.

3. The Zymotic Mortality in 1895 shows some improvement upon even the low Zymotic Mortality of 1894. The Zymotic Mortality in England and Wales in 1895 is considerably higher than that of the Combined Districts, and shows a rise as compared with that of 1894.

The improvement is due to a lowering of the Zymotic Mortality in the Rural Districts. The Urban Districts, on the other hand, show a rise upon the Zymotic Mortality of 1894. It is worthy of note that of the seven principal Zymotic Diseases the Combined Districts compare favourably with England and Wales in five, viz.:—Smallpox, Measles, Scarlet Fever, Whooping Cough and Diarrhoea.

4. The Infantile Mortality is slightly lower than the average for England and Wales, but is considerably higher than that during 1894. This rise is chiefly contributed to by the Rural Districts.

5. The Mortality among persons aged 65 and upwards during 1895 shows a rise upon the mortality of 1894, which rise is due to the Rural and Urban Districts equally.

6. The death-rate from Phthisis in 1895 shows a slight improvement upon that of 1894. The Phthisis death-rate in the Rural Districts shows the greater amount of improvement.

7. The mortality from the chief Respiratory Diseases shows a slight rise, which is contributed to mostly by a rise in the Urban Districts.

INFECTIOUS DISEASE.

The compulsory notification of infectious disease has been in force throughout the year in eighteen of the twenty-four districts, and applies to a population of over 127,000, out of the total population of 163,863.

During the year, 1332 notifications were received from the medical practitioners in these eighteen districts. In 1894, the number of notifications received was 1177, and in 1893 the number was 1436.

The cases notified were as follows :—

Diphtheria	..	..	662
Scarlet Fever	..	..	363
Enteric Fever	..	..	120
Erysipelas	..	..	94
Measles	..	..	32
German Measles	..	..	19
Croup	..	..	16
Whooping Cough	..	..	10
Continued Fever	..	..	9
Puerperal Fever	..	..	5
Smallpox	..	..	1
Typhus Fever	..	..	1

The infectious cases notified during 1894 were as follows :—

Scarlet Fever	..	..	644
Diphtheria	..	..	339
Erysipelas	..	..	100
Typhoid Fever	..	..	67
Puerperal Fever	..	..	12
Croup	..	..	6
Continued Fever	..	..	5
Smallpox	..	..	2
Measles	..	..	2

The large increase in the number of cases of Diphtheria is due to the prevalence of a prolonged epidemic in the Festiniog Urban Sanitary District.

A considerable reduction in the number of Scarlet Fever cases has taken place during 1895 as compared with previous years.

The rise in the number of Enteric Fever cases is chiefly due to an uncommon outbreak in the quarry village of Penrhynside.

SMALLPOX.

The introduction of Smallpox into the district during the year, as in 1894, and once again in 1895, forcibly reminds us that we are constantly in danger of invasions of this dread disease. Fortunately, the disease was diagnosed early, and as the case was one in a district which had an isolation hospital in readiness, it was possible to ensure the strict isolation of the patient, which is necessary to deal successfully with similar outbreaks. To be prepared for outbreaks of Smallpox it is also imperative for all members of the community to be well vaccinated and re-vaccinated.

The sad ravages which have been recently made by Smallpox in the town of Gloucester are an object lesson and a warning to the country. It is to be earnestly hoped that all the Authorities charged with the administration of the Vaccination Acts will now more firmly than ever, insist upon compliance with these Acts in the districts for which they are responsible.

INFLUENZA.

A considerable number of cases of Influenza occurred throughout the year. In March, April, and May, the disease assumed epidemic proportions in some districts, notably in the quarry villages. During the year, 94 deaths were attributed to this cause as compared with 51 in 1894. Of these, 67 occurred in the months of March, April, and May. The districts which suffered most were Llanrwst Rural Sanitary District, where 13 deaths occurred; Bettwsycoed Rural Sanitary District, 11 deaths; Gwyrfai Rural Sanitary District, 10 deaths; and Festiniog Urban Sanitary District, 10 deaths.

In order to bring prominently to the notice of the public that Influenza is an infectious disease, and that persons attacked should be isolated from the healthy members of the community, posters in English and Welsh, recommending the necessary preventive measures were extensively circulated throughout all the districts in the month of March. It is believed that these had considerable effect in checking the spread of the epidemic.

ADOPTION OF THE NOTIFICATION OF INFECTIOUS DISEASES ACT.

During the year the Infectious Diseases (Notification) Act, 1889, has been adopted by two more Sanitary Authorities, viz.:—Ogwen Rural, and Llanfairfechan Urban. These two districts have an estimated population of 9571. Out of the twenty-four Sanitary Districts, with an estimated population of 163,863, there now remain only four districts, with an estimated population of 26,650 where the Notification Act is not in force. These are Bethesda Urban, with Llanrwst, Bettwsycoed, and Aethwy Rural Districts.

ISOLATION HOSPITAL PROVISION.

During the year an Isolation Hospital has been opened in the Bangor Urban Sanitary District, and has already been of great service. To this hospital, patients from the Ogwen Rural District and the *Clio* Training Ship are also admitted by arrangement.

STEAM DISINFECTORS.

In the report of Dr. Bruce Low, it is mentioned that none of the District Councils are provided with a modern apparatus whereby satisfactory and trustworthy disinfection of clothing and bedding can be ensured. This is, doubtless, on account of the great expense of the disinfectors by steam which have been obtainable in the past. It is worthy of note that there are now on the market steam disinfectors at a price varying from £50 to £140 which yield satisfactory results. It would be an excellent thing if one of these disinfectors were available for every district. The Bangor Urban Authority has decided to apply for a loan for this purpose.

HOUSING OF THE WORKING CLASSES ACT, 1890.

It is worthy of mention that among the various Sanitary Authorities there is a growing tendency to make use of the beneficial powers conferred upon them by the above Act. In several of the Urban Districts, houses which were considered unfit for habitation have been closed during the year by putting the Act in force. Part III. of the Act is one which if put in force would go a long way towards improving the public health, and would also meet the need for better houses which is keenly felt by many working men's families. This part of the Act enables "lodging houses for the working classes" which term includes separate houses or cottages to be provided by Local Authorities, who shall exercise the general management, regulation and control of such houses. One Sanitary Authority, that of Llandudno, has taken advantage of this part of the Act, and is now applying for a loan of £4500, so as to enable nineteen model cottages to be erected for working men's families. One of the sections of the Act confers powers on the Public Loan Commissioners to advance sums on loan to any company, society, or association established for the purpose of constructing, or improving, or of facilitating, or encouraging the construction or improvement of dwellings for the working classes. It appears to me that the machinery, whereby the slums and insanitary places, which are still too numerous in our towns, can be swept away, and an improved environment for the people provided instead, is now in readiness, and only requires forward action by Sanitary Authorities to initiate great changes for the real improvement of the various districts under their care.

LECTURES TO SANITARY INSPECTORS.

The Joint Sanitary Committee in 1893 unanimously decided to provide a course of lectures upon Public Health questions by expert sanitarians, so that the Inspectors at present in office, as well as others

who may wish for the training, may have opportunities of becoming thoroughly efficient in the increasingly intricate problems of Sanitation. The obstacles in the way of carrying this into effect have up to the present proved insurmountable, but a step in the right direction has been taken by the Sanitary Inspectors themselves. An Association comprising all the Inspectors of the Combined Districts, twenty-five in number, has now been formed for the purpose of improving the efficiency of the Public Health Service. Applications have been made to the four County Councils for a grant from the Technical Education funds, so that a course of lectures may be instituted. It is to be hoped that every possible encouragement will be given to a body of useful public servants who are wishful to further increase their efficiency and their value to the community. This Association now possesses the nucleus of a Museum of modern Sanitary Appliances, and is holding regular meetings, at which papers upon Public Health questions are read and discussed.

LOCAL GOVERNMENT BOARD INQUIRY INTO, AND REPORT UPON SANITARY PROGRESS AND ADMINIS- TRATION IN THE COMBINED DISTRICT.

During the year a lengthy and searching enquiry was conducted by Dr. Bruce Low, Medical Inspector of the Local Government Board, into the Sanitary Progress and Administration of the twenty-four districts. The inquiry extended over a period of about two months, and included every one of the districts. The report of the inquiry was published in August last, and supplied to all the Sanitary Authorities interested. This report, which embodies the observations of an expert sanitarian with ripe experience of many other parts of the country, is an exceedingly full and valuable document. The numerous recommendations which are made by Dr. Bruce Low, and the graphic description of the sanitary defects of the district which he gives, will no doubt materially assist the public bodies of the district, and stimulate them to proceed steadily with the important work of supervising and improving the public health. In various particulars progress has already taken place in consequence of this inquiry. It would be well for the report to be taken into careful consideration by each Sanitary Authority occasionally.

LLANRWST RURAL SANITARY DISTRICT.

Area	60,105 acres.
Population, Census 1881	7,950
,, ,, 1891	7,413
Estimated population, June, 1895 ..	7,189

BIRTH-RATE.—The number of births registered during 1895 was 162, being at the rate of 22·5 per 1000 of population.

DEATH-RATE.—There were registered from all causes 157 deaths, or at the rate of 21·8 per 1000 persons living.

ZYMOTIC MORTALITY.—The seven principal Zymotic diseases were the cause of 7 deaths. Of these, 3 were caused by Diarrhœa, 3 by Whooping Cough, and 1 by Diphtheria. These deaths were at the rate of 0·97 per 1000 of population.

INFANTILE MORTALITY.—There were 31 deaths among infants under one year of age, being in the proportion of 191 per 1000 population.

MORTALITY AMONG PERSONS AGED 65 AND UPWARDS.—Among persons in this class there were 64 deaths, being at the rate of 8·8 per 1000 registered births.

PHTHISIS MORTALITY.—Phthisis was the cause of 13 deaths, or at the rate of 1·8 per 1000 of population.

DEATH-RATE FROM THE CHIEF RESPIRATORY DISEASES.—The chief Lung diseases were the cause of 16 deaths, being at the rate of 2·2 per 1000 of population.

Comparing these statistics with those of England and Wales generally, we observe that the birth-rate and the Zymotic Mortality are much lower, while the general death-rate and the infantile mortality are considerably higher. The death-rate among aged persons is higher than that of the Llanrwst Union during last year, and the Phthisis death-rate slightly lower.

INFECTIOUS DISEASE.—During the year information was received with reference to 6 cases of Scarlet Fever, 1 of Diphtheria and 1 of Whooping Cough.

The cases of Scarlet Fever occurred in Llanrwst during October and December, while the case of Diphtheria was a fatal one at Eglwysbach.

The infectious sick-rate, like the infectious mortality, as far as can be gathered without the aid of the Notification Act, is thus seen to be a very low one.

A noteworthy fact in connection with this district is that two Sanitary Inspectors have now been appointed. Of these, one gives his attention to the town of Llanrwst, and the other to the rural portion of the district. This arrangement gives promise of working satisfactorily.

LLANRWST.—Several details have to be referred to in connection with the sanitary history of this market town.

Water Supply.—In accordance with the request of the Local Government Board, the Sanitary Authority engaged the services of an expert, who spent three weeks in inspecting the whole system. The opinion at which he arrived was, that nearly the whole of the waste which takes place was due to the galvanized iron service pipes which extend from the mains to the stopcocks, and his recommendation was that these be condemned and replaced by lead pipes connected to the main by brass union ferrules. Acting upon this recommendation, the Authority have obtained a loan of £200, and the work is now in progress. The Authority have been to a great deal of expense and trouble in trying to improve the water supply by searching for any waste, and have remedied all which have been discovered by their Surveyor. So far, however, it cannot be said that material improvement has resulted, as the houses on the higher levels still complain of scarcity when there is much draw on the water in the town. It is hoped that, after replacing the branch service pipes, improvement will result. Whether the improvement will be sufficient remains to be seen.

Scavenging.—It is satisfactory to note that since the commencement of November, the whole town has been regularly scavenged. The difficulties in the way of obtaining a piece of land for the purposes of tipping refuse have been overcome, and the town refuse is now systematically removed. The expense occurred by the system which has been introduced will probably not exceed £40 per annum, which sum is a small amount to pay for the invaluable results obtained by preventing organic refuse from accumulating in the vicinity of dwellings.

Housing of the Working Classes.—Seven houses have been voluntarily closed by the owner, after notice from the Authority, rather than go to the expense of placing them in a proper sanitary condition. This step is to be regretted, but appears to be rendered advisable owing to the destructive and uncleanly habits of the tenants.

The Authority has undertaken a careful inspection of the following villages and hamlets of their district:—Eglwysbach, Capel Garmon,

Gwytherin, Llangerniew, Llanddoget, Pentrevoelas, Yspytty Ifan, Graig, Nebo, Pandy Tudur, Pentre Dafarn-y-Fedw, and Rhydlydan. Numerous nuisances have been discovered by means of this systematic inspection, such as absence of privy accommodation and drainage, dampness, and want of repair of dwellings, and pigstye nuisances. These are being dealt with by serving notices upon the responsible persons, and considerable improvement has resulted.

The water supply of the village of Capel Garmon has been under consideration by the Authority, but before carrying out any scheme it has been decided to watch the yield of certain springs which are proposed to be utilized.

Sanitary Inspector's Record for 1895.

No. of complaints received .. .. .	.. many.
No. of inspections of houses or premises	632
No. of orders given for the sanitary amendment of houses or premises	20
No. of houses or premises cleansed, repaired, or whitewashed ..	30
No. of houses disinfected or supplied with disinfectants ..	15
No. of house drains repaired, cleansed, or trapped ..	110
No. of house drains ventilated	8
No. of privies or W.C.'s new provided	32
No. of privies or W.C.'s repaired	306
No. of W.C.'s supplied with water	35
No. of houses provided with a supply of water	29
No. of accumulations of manure and refuse removed	numerous.
No. of animals removed	4
No. of seizures of diseased meat or food	none.
No. of legal proceedings taken	none.

BETTWSYCOED RURAL SANITARY DISTRICT.

Area	..	..	..	59,709 acres.
Population, Census 1881	..	..	..	6,159
„	„	1891	..	5,598
Estimated population, June, 1895	..	..	..	5,364

BIRTH-RATE.—There were registered during the year 132 births, being at the rate of 24·6 per 1000 of population.

DEATH-RATE.—From all causes, 110 deaths were registered. These were at the rate of 20·5 per 1000 of population.

ZYMOTIC MORTALITY.—Of the deaths, 4 were due to one of the principal Zymotic diseases, viz.:—Diphtheria, which gives a Zymotic Mortality of 0·74 per 1000 persons living.

INFANTILE MORTALITY.—23 of the deaths were those of infants under one year of age, or in the proportion of 174 per 1000 registered births.

DEATH-RATE AMONG PERSONS AGED 65 AND UPWARDS.—In this class there were 39 deaths, or at the rate of 7·2 per 1000 of population.

PHTHISIS DEATH-RATE.—5 of the deaths were caused by Phthisis, being at the rate of 0·93 per 1000 of population.

DEATH-RATE FROM THE CHIEF RESPIRATORY DISEASES.—These diseases were the cause of 10 deaths, or at the rate of 1·8 per 1000 of population.

The vital statistics for the year shew a rather low birth-rate, and a general death rate higher than in rural districts generally. The excess in mortality is contributed to by a high mortality among infants under one year of age, and among aged persons. The death-rate from Phthisis and from the chief respiratory diseases was lower than the rate prevailing in the Llanrwst Union during 1894.

INFECTIOUS DISEASE.—During the year information was received with reference to 8 cases of Scarlet Fever and 6 of Diphtheria.

The Scarlet Fever cases occurred at Roman Bridge, at Dolyddelen, and Trefriw. One of the latter was on a visit from another district. Fortunately all recovered.

All the Diphtheria cases occurred in Dolyddelen in October and November. In four instances the disease terminated fatally after a brief illness. At this time numerous cases of colds, and of an evidently infectious type of sorethroat were prevalent in the neighbourhood. Attendance at school seemed to be the chief means by which the contagion was spread. In consequence of this the school was closed for

a period of four weeks. The infant department of the school was found to be overcrowded and the sanitary arrangements out of order.

WATER SUPPLY.—The villages of this district are as a rule well supplied with water, but in common with the country generally, the water systems were interfered with very considerably by the long frost in February. A great amount of anxiety and work was necessitated through the branch mains and service pipes being frozen up. Even the water main in Bettws-y-coed was frozen in places. To remedy the damage which was caused the Sanitary Authority had to go to considerable expenditure.

At Bettws-y-coed the water supply has been materially improved by replacing the earthenware pipes which conveyed the water for some distance from the intake by 200 yards of six inch cast iron pipes. This has greatly increased the pressure in the village.

SEWERAGE.—The sewerage systems at Dolyddelen, Bettws-y-coed, and Trefriw, have been kept in good order during the year. The liberal provision of automatic flushing cisterns in these systems has, no doubt, accounted for the cleanly condition of the interior of these sewers on all occasions on which I have examined them.

At Cwm Penmachno, 180 yards of new sewers have been laid to serve Machno Terrace and Glanaber Terrace. These sewers are of 9 inch pipes throughout, and all the houses in these terraces have been connected to them by proper pipe drains and trapped gulleys. This is a great improvement for this village.

During the last three months of the year, the Authority have had the services of a separate Sanitary Inspector, as the work of two districts of large area was too much for one inspector to cope with. A plan of supervising sanitary affairs is carried out in this district which I wish to recommend to other Sanitary Authorities. The same plan is now being found to work well in rural districts in Scotland. For each of the villages of Penmachno, Dolyddelen, and Bettws-y-coed, a local man has been appointed to take charge of the sewers, the water system, and the more obvious sanitary matters. The "village officer," as he is called in Scotland, is under the supervision of the Sanitary Inspector, and reports to him all matters which require his attention.

Another improvement which is on the point of being carried into effect is that the Parish Council propose acquiring a plot of land for the purpose of tipping the ashes and house refuse from the houses at Bettws-y-coed. This will be at a suitable distance from the village, which consequently may be kept in a thoroughly cleanly manner without any insanitary accumulations being allowed to take place.

This work is a very necessary one for all villages, and especially so for health resorts such as Bettws-y-coed.

The Parish Council of Dolyddelen have during the year made use of their powers by providing a burial ground at a considerable distance from the village, so as to do away with the necessity of interment in the crowded churchyard in the centre of the village.

Sanitary Inspector's Record for the last three months of 1895.

No. of complaints received	5
No. of inspections of houses or premises	225
No. of orders given for the sanitary amendment of houses or premises	20
No. of houses disinfected or supplied with disinfectants ..	5
No. of house drains repaired, cleansed, or trapped ..	6
No. of privies or W.C.'s new provided	6
No. of do. do. repaired	4
No. of W.C.'s supplied with water	9
No. of houses supplied with water	7
No. of accumulations of manure and refuse removed ..	3

DEUDRAETH RURAL SANITARY DISTRICT.

Area	81,369 acres.
Population, Census, 1881	9,298
,, ,, 1891	8,561
Estimated population, June, 1895 ..	8,254

BIRTH-RATE.—During the year 1895 there were registered 220 births, being at the rate of 26·6 per 1000 of population.

DEATH-RATE.—The number of deaths registered from all causes was 139, which is at the rate of 16·8 per 1000 persons living.

ZYMOTIC MORTALITY.—Nine deaths were caused by the seven principal Zymotics, being at the rate of 1·09 per 1000 of population. Of these deaths, 6 were due to Diphtheria, 2 to Enteric Fever and 1 to Diarrhœa.

INFANTILE MORTALITY.—Among infants under one year of age there were 27 deaths, or in the proportion of 122 per 1000 registered births.

DEATH-RATE OF PERSONS AGED 65 AND UPWARDS.—Of the deaths, 43 were of persons aged 65 and upwards, being at the rate of 5·2 per 1000 of population.

PHTHISIS DEATH-RATE.—Twenty of the deaths were caused by Phthisis, being at the rate of 2·4 per 1000 of population.

DEATH-RATE FROM THE CHIEF RESPIRATORY DISEASES.—The chief Lung diseases were the cause of 18 deaths, being at the rate of 2·1 per 1000 of population.

These figures shew for 1895 a low death-rate, a low Zymotic Mortality, a low death-rate at the two extremes of life, and also a low death-rate from the chief Lung diseases. Of the fatal Diphtheria cases, three occurred in isolated hillside cottages in Llandecwyn (two occurring in one house), one occurred in a hamlet called Gellilydan, and one in Llanfrothen. The fatal Typhoid cases occurred in Penrhyndeudraeth and Harlech.

INFECTIOUS DISEASE.—During the twelve months 104 cases of infectious sickness were notified from this district, as follows:—

Diphtheria	52 notifications.
Scarlet Fever	17 ,,
Measles	14 ,,
Typhoid Fever	10 ,,
Erysipelas	9 ,,
Croup	2 ,,

The cases of Scarlet Fever occurred irregularly throughout the year at the villages of Trawsfynydd, Talsarnau, Harlech, and Penrhyndeudraeth, and a few occurred in isolated rural cottages in Llandecwyn.

The ten cases of Typhoid Fever included one at Penrhyndeudraeth, where the water supply was obtained from a suspicious source, five cases in Harlech (four being in the same house), and three cases in a crowded and insanitary house in Llanfrothen parish.

The cases of Measles occurred in November and December at Penrhyndeudraeth, Harlech, and in the parish of Llandecwyn, and in consequence the day schools at Harlech and Llandecwyn had to be closed for three weeks.

The Diphtheria cases occurred mostly in Trawsfynydd from May until September. The disease was, no doubt, an extension of the epidemic at Festiniog, where most of the breadwinners of Trawsfynydd find employment. The character of the disease was mild as shown by the fact that none proved fatal in this village. A considerable number, also mostly of a mild nature, occurred in Penrhyndeudraeth during November and December. The same cause was doubtless in operation here also.

SANITARY WORK.—The following particulars of sanitary work carried out during the year are deserving of mention:—

The Authority after a great deal of difficulty have arranged for the district of Upper Penrhyndeudraeth to be supplied with water from the mains of the Portmadoc Water Company. It is to be hoped that this populous district, which comprises about 300 houses and a population of nearly 1500, will be soon provided with a constant and abundant supply of water, and that its previous experience of scanty and dangerous supplies will not again be faced.

At Penrhyndeudraeth extensive sewerage improvements have been carried out,—about 600 yards of public sewers have been laid.

At Trawsfynydd, the main sewer which used to discharge on the road side, thereby creating a dangerous nuisance for a great distance, has been extended about 150 yards and now discharges in a suitable spot on to the surface of the land.

At Harlech, about 96 yards of public sewer have been laid which will improve the sanitation of some portions of the place.

The Authority have carried out a noteworthy improvement by arranging for the scavenging of Lower Penrhyndeudraeth (which has a population of about 900) by one of the neighbouring farmers. This has been so far carried out satisfactorily, and with marked benefit to the village, by preventing the usual heaps of midden and house refuse from accumulating. It is the intention of the Authority to arrange for Upper Penrhyn and Harlech to be regularly scavenged in a similar manner.

Public ashpits have also been constructed at the villages of Trawsfynydd, Maentwrog, and Talsarnau.

It is pleasing to be able to record that the new Sanitary Authority has thus proved itself to be alive to the sanitary requirements of their district, and that they have accomplished a considerable amount of work during the year, and it is to be hoped that the important questions of improving the water supply of Harlech, Garreg, and Gellilydan, which are now under their consideration, will be satisfactorily solved by them. I wish also to strongly advise that the long delayed question of the sewerage of Harlech be seriously considered, as experience continually shows that, in a populous place unprovided with proper sewers, dangerous pollution of the soil and air near dwellings inevitably occurs, which sooner or later results in an outbreak of one of the "filth diseases" of which Typhoid Fever is the most common example in Britain. Especially where the water supply of a place is open to danger of pollution as at Harlech, is this likely to occur.

Sanitary Inspector's Record for 1895.

No. of complaints received	18
No. of inspections of houses and premises	762
No. of orders given for the sanitary amendment of houses and premises	52
No. of houses cleansed, repaired, or whitewashed	40
No. of houses disinfected or supplied with disinfectants	54
No. of houses drains cleansed, repaired, or newly constructed ..	90
No. of privies and W.C.'s new provided	24
No. of do. do. repaired	51
No. of W.C.'s supplied with water	8
No. of accumulations of manure and refuse removed	118
No. of animals removed	36
No. of houses closed as unfit for habitation	4

GLASLYN RURAL SANITARY DISTRICT.

Area	42,387 acres.
Population, Census, 1881	3,447
,, ,, 1891	3,003
Estimated population, June, 1895 ..	2,818

BIRTH-RATE.—There were registered during the year 97 births, being at the rate of 34·4 per 1000 of population.

DEATH-RATE.—From all causes, 56 deaths were registered. These deaths were at the rate of 19·8 per 1000 of population.

ZYMOTIC MORTALITY.—There were no deaths from a Zymotic cause during 1895.

INFANTILE MORTALITY.—Eleven of the deaths were those of infants under one year of age, or at the rate of 113 per 1000 registered births.

DEATH-RATE AMONG PERSONS AGED 65 AND UPWARDS.—There were 22 deaths in this class, or at the rate of 7·7 per 1000 of population.

PHTHISIS DEATH-RATE.—Phthisis was the cause of 4 deaths, or at the rate of 1·4 per 1000 of population.

DEATH-RATE FROM THE CHIEF RESPIRATORY DISEASES. — These diseases were the cause of 10 deaths, being at the rate of 3·5 per 1000 of population.

The vital statistics for 1895 shew an unusually high birth-rate, and a death-rate slightly higher than the average for England and Wales generally. The low mortality among infants and from Phthisis was counteracted by a higher mortality among aged persons, and from the chief respiratory diseases than the average. The freedom of mortality from the chief infectious diseases is worthy of note.

INFECTIOUS DISEASE.—From this district 8 cases of infectious sickness were notified, as follows:—

Erysipelas	3
Typhoid Fever	2
Scarlet Fever	2
Diphtheria	1

The cases of Scarlet Fever occurred at Dolbenmaen and Penmorfa.

One of the Typhoid Fever cases, that of a Hospital nurse at Bedd-gelert, was introduced from England. The other occurred in a house at Prenteg with a dangerous rubble culvert passing under it.

The Diphtheria case occurred at Garn Dolbenmaen, and was of a very mild character. The infectious sickness of the district during the year is thus seen to be of a light description.

SANITARY WORK.—The sanitary work which has been carried out during the year shews that the new Authority is anxious to improve the sanitation of its district. The following questions have engaged attention :—

1. The construction of about 60 yards of public sewer at the village of Penmorfa. This is now completed.

2. *The sewerage of Rhyd-ddu.*—An engineer was engaged to prepare plans and draw up an estimate of the cost of a scheme to sewer this village, and to deal with the sewage in such a way as to render the water supply of Carnarvon proof against the long-standing pollution from this village. The plans have now been completed, and in the main particulars approved of both by the Glaslyn District Council and the Carnarvon Town Council.

3. *The water supply of Rhyd-ddu.*—This question has engaged a considerable amount of attention. Several sources have been suggested and examined. An engineer has now been instructed to draw out plans and prepare an estimate of the cost of a scheme of a supply of water for Rhyd-ddu, and so do away with the present chief supply, which is undoubtedly open to pollution. This village is now visited in summer by large numbers of visitors, and it is obvious that to maintain a reputation as a health resort it will be necessary to carry out these improvements.

4. *The water supply and sewerage of Beddgelert.*—The same engineer has been instructed to prepare schemes for carrying out these important improvements at this growing health resort.

I am informed that it is the intention of the Authority to tackle these important questions in a no half-hearted manner, and as soon as the plans are completed to apply for a loan to carry out the different schemes with as little delay as possible.

Sanitary Inspector's Record for 1895.

No. of complaints received	4
No. of inspections of houses and premises	20
No. of houses disinfected or supplied with disinfectants	12
No. of privies and W.C.'s new provided and repaired	8
No. of accumulations of manure and refuse removed	36
No. of animals removed	6

LLEYN RURAL SANITARY DISTRICT.

Area	..	..	..	..	91,465 acres.
Population, Census, 1881	..	..	..	..	18,561
„	„	1891	..	..	17,632
Estimated population, June 1895,	..	..	..	..	17,245

BIRTH-RATE.—During the twelve months, there were registered 392 births, being at the rate of 22·7 per 1000 of population. In 1894, the birth-rate was 21·1 per 1000.

DEATH-RATE.—There were registered in this district from all causes 310 deaths, being at the rate of 17·9 per 1000 persons living. During 1894, the general death-rate was 19·0 per 1000.

ZYMOTIC MORTALITY.—Twenty-two of the deaths were due to the seven principal zymotics, being at the rate of 1·27 per 1000 of population. Of these deaths, 12 were caused by Diphtheria, 4 by Diarrhœa, 4 by Whoopingcough, 1 by Scarlet Fever, and 1 by Typhoid Fever. In 1894, the Zymotic death-rate was 0·63 per 1000 of population.

INFANTILE MORTALITY.—There were 45 deaths among infants under one year of age, or in the proportion of 114 per 1000 registered births. In 1894, the Infantile Mortality was at the rate of 103 per 1000 registered births.

DEATH-RATE AMONG PERSONS AGED 65 AND UPWARDS.—In this class there were 139 deaths, or at the rate of 8·0 per 1000 of population. The death-rate in this class during 1894 was 7·8 per 1000.

PHTHISIS DEATH-RATE.—There were 34 deaths caused by Phthisis, or at the rate of 1·9 per 1000 of population. During 1894, the Phthisis death-rate was 2·2 per 1000.

DEATH-RATE FROM THE CHIEF RESPIRATORY DISEASES.—31 deaths were caused by this group of diseases, being at the rate of 1·7 per 1000 of population. In 1894, the rate was 2·2 per 1000.

The vital statistics for 1895 show a slight improvement upon the low birth-rate of 1894, and the general death-rate also shews improvement. The improvement in the general death-rate is chiefly due to fewer deaths in the class of “all other diseases,” from Phthisis and from the chief Lung diseases. The mortality from the chief infectious diseases

shews a rise which is due to an outbreak of Diphtheria in the last quarter of the year. The mortality at the two extremes of life shews a slight rise upon that of 1894.

NOTIFICATION OF INFECTIOUS DISEASE.—During the twelve months, 67 cases of infectious sickness were notified as follows :—

Diphtheria	..	..	..	41
Scarlet Fever	..	..	..	12
Typhoid Fever	..	..	..	10
Erysipelas	..	..	..	4

During 1894, 47 notifications of infectious disease were received.

The cases of Scarlet Fever occurred at Rhydyclafdy, Penrhos, Nevin, and Llaniestyn. In the latter parish a fatal case occurred. The outbreaks, fortunately, were able to be kept from spreading from the houses where the disease was first recognized, and did not develop into an epidemic. The school at Rhydyclafdy had to be closed for some time owing to the presence of the disease.

The cases of Typhoid Fever occurred at Llanaelhaiarn (4), Fourcrosses (4), Chwilog (1), and Llangybi (1).

Three of the cases at Llanaelhaiarn occurred in one house within a few days of each other. At this house insanitary conditions were found in the shape of pig nuisances, which probably accounted for the outbreak.

Of the four cases at Fourcrosses two proved fatal, as also did the case near O hwilog. The type of disease at Fourcrosses was an unusually infectious one, as five cases in other places were traced to it.

The forty-one cases of Diphtheria occurred without exception at the latter end of the year. This district, which has had serious outbreaks of Diphtheria in past years, was apparently free from the disease from November, 1894, until the middle of September, 1895. At this time four cases were notified from one house in Chwilog, one of which proved fatal. The disease was not discovered to spread from this house to any house in the neighbourhood, but at the end of September two cases were notified from the parish of Llaniestyn. During the second week of October several other cases were notified from the same parish, and by the last week of October several cases were notified from the neighbouring parishes of Ceidio, Meillteyrn, Llanengan, and Nevin. Besides the cases notified, there was a very general prevalence of sore throat at this time, many cases, doubtless, not being attended by any medical man. Many of the cases were severe in type, some having a fatal termination before they were notified. The district in which the

greatest prevalence occurred, consists of a low lying valley running irregularly across the Lleyrn peninsula. The valley is bleak and cold in winter, with a damp and depressing climate, and has been visited by a severe outbreak of Diphtheria some years back. Shortly before the first cases were taken ill, a rapid lowering of the atmospheric temperature took place, with rain and wind. The attendance at school of unrecognized cases was, no doubt, a prominent factor in spreading the disease. Some cases were also traced to the attendance at a Sunday School of a boy from a house where cases of Diphtheria existed. The effect of closing schools in checking outbreaks of Diphtheria has been very marked in this sparsely populated neighbourhood. The school authorities in this district fully recognize this, and have no hesitation in closing their schools when a serious case of infectious disease occurs among any of their schools. It has been remarkable during the period a school has been closed how completely checked the disease appeared to be, and yet after re-opening cases would at once occur. The prolonged closing of the schools has no doubt interfered considerably with the work of education, but there is no question as to the necessity for it in similar circumstances. The following schools were closed for prolonged periods:—Sarnbach (Llanengan) Voluntary, Llanengan National, Llaniestyn National.

SANITARY WORK CARRIED OUT DURING THE YEAR.

WATER SUPPLY.—The water supply of the villages of Llithfaen and Trevor, comprising about 107 houses, has been dealt with, and considerable improvements have been carried out. At the villages of Efail Newydd, Abererch, Rhydyclafdy, and Bryn croes, improvements in the water supply have been effected.

A scheme for improving the water supply of Llanaelhaiarn by piping the overflow from an ancient well some distance from the village, and so bringing the water to convenient spots in the middle of the village, has been prepared, but it is to be regretted that the scheme is now at a standstill owing to local obstruction.

SEWERING.—At Nevin a portion of the town has been provided with a sewer by which about 90 houses have been served. This has been a much needed improvement. At the villages of Pencaenewydd, Llithfaen, Llangian, Abersoch, Rhydyclafdy, and Edern, some minor improvements to the village drains have been effected.

For the village of Fourcrosses a scheme has now been prepared to sewer the whole of the village. At present only portions of the village are sewered, and in other portions the existing drains and sewers are

a constant source of danger to health. The carrying out of this scheme will be a decided step in the right direction on the part of the Sanitary Authority. It must be confessed that to place the numerous villages of this district in a safe sanitary condition by ensuring for them an abundant and unpolluted supply of water, means of rapidly removing their liquid refuse by means of properly constructed drains, and a method of regularly removing all solid refuse by a system of scavenging, there is room for a great amount of work for the new Authority. At the larger villages the employing of the services of a "village officer," or arranging with a local farmer to regularly scavenge the place, would appear to me to be a most beneficial measure. At the growing seaside village of Abersoch, and at Abererch, the need of more thorough sewerage is evident.

During the year special reference has been made to the sanitary condition of Fourcrosses, portions of Nevin, Llithfaen, Llanaelhaiarn. Recommendations have also been made with regard to the water supply of Trevor, an outbreak of Anthrax at Bodvean, pollution of a public well at Bryncroes, and a case of wilful exposure of a person suffering from Scarlet Fever.

Up to the present time this Authority has not had the help of bye-laws in their sanitary work, but I am informed that steps will now be taken to have suitable bye-laws adopted in the near future.

Sanitary Inspector's Record for 1895.

No. of complaints received	95
No. of inspections of houses or premises	530
No. of orders given for the sanitary amendment of houses or premises	58
No. of houses cleansed, repaired, or whitewashed	51
No. of houses disinfected or supplied with disinfectants	60
No. of house drains repaired, cleansed, or trapped	12
No. of house drains ventilated	none
No. of privies and W.C.'s new provided	31
No. of do. do. repaired	48
No. of W.C.'s supplied with water	none
No. of houses supplied with water	107
No. of accumulations of manure and refuse removed	56
No. of animals removed	none
No. of seizures of diseased meat or food	none
No. of legal proceedings taken	none
No. of houses closed as unfit for habitation	none

GWYRFAI RURAL SANITARY DISTRICT.

Area	..	..	..	70,443 acres.
Population, Census, 1881	..	..	..	30,245
„	„	1891	..	27,737
Estimated population, June, 1895	..	..	..	26,692

BIRTH-RATE.—There were registered in this district 739 births, this number being at the rate of 27·6 per 1000 of population. In 1894 the birth rate was 29·0 per 1000.

DEATH-RATE.—From all causes there were registered 536 deaths, or at the rate of 20·0 per 1000 persons living. During 1894, the general death-rate was 18·5 per 1000. Besides these, 7 deaths occurred in the Carnarvon Workhouse of persons belonging to the district. If these be added, a corrected death-rate of 20·3 per 1000 is obtained.

ZYMOTIC MORTALITY.—The seven principal Zymotic diseases were the cause of 27 deaths, which number is at the rate of 1·01 per 1000 of population. Of these 27 deaths, 9 were occasioned by Diphtheria, 6 by Scarlet Fever, 5 by Enteric Fever, 4 by Diarrhœa, and 3 by Whooping Cough.

During 1894, the Zymotic Mortality was 2·04 per 1000.

The fatal cases of Diphtheria occurred at Clwtybont, Ebenezer, Llanddeiniolen, Llandwrog, and Llanberis. The Scarlet Fever cases occurred in Cwmyglo, Carmel, Llanrug, and Portdinorwic. Cases of Enteric Fever resulted fatally in Talysarn, Penisa'rwaen, Clwtybont, and Ebenezer.

INFANTILE MORTALITY.—Among infants under one year of age there were 121 deaths, or in the proportion of 163 per 1000 registered births.

During 1894, the Infantile Mortality was at the rate of 131 per 1000 registered births.

DEATH-RATE AMONG PERSONS AGED 65 AND UPWARDS.—Among persons in this class there occurred 163 deaths, or at the rate of 6·1 per 1000 of population.

In 1894, the aged mortality was at the rate of 4·5 per 1000.

PHTHISIS DEATH-RATE.—To Phthisis were attributed 54 deaths, this being at the rate of 2·0 per 1000 of population, as compared with 1·9 per 1000, which was the rate in 1894.

DEATH-RATE FROM THE CHIEF RESPIRATORY DISEASES.—The chief Lung diseases were the cause of 77 deaths, or at the rate of 2·8 per 1000 of population.

In 1894, the rate was 2·0 per 1000.

The above vital statistics shew some lowering of the birth-rate, and a rise in the general death-rate, as compared with the previous year. This unfavourable rise is contributed to by a rise in the mortality among infants, and among aged persons, and in the number of deaths from Phthisis and the chief Lung diseases. One good feature is that the mortality from the chief Zymotic diseases is considerably lower than in 1894.

INFECTIOUS DISEASE.—There were notified during the twelve months 221 cases of infectious sickness, which were as follows :—

Scarlet Fever	..	..	..	126	notifications.
Diphtheria	..	..	..	47	do.
Erysipelas	..	..	..	23	do.
Typhoid Fever	..	..	..	19	do.
Continued Fever	..	..	..	3	do.
Puerperal Fever	..	..	..	2	do.
Croup	..	..	..	1	do.

In 1894, in the Carnarvon Union, 433 cases of infectious disease were notified.

The improvement in the amount of infectious sickness in the district has to be discounted by the fact that for several months of the year the Notification Act was in abeyance, owing to the non-adoption of the Act by the Sanitary Authority until it was decided by the Local Government Board that the Act was still in force although the district had been divided.

The places mostly affected by Scarlet Fever outbreaks during the year were Waenfawr, Groeslon, Penygroes, Llanllyfni, Ebenezer, and Portdinorwic. The disease did not spread so rapidly or widely as in 1893 and 1894, and it is believed that the public generally are becoming more alive to the necessity of preventive measures in outbreaks of Scarlet Fever. It was not found necessary to close any of the schools of the district owing to this disease during the year.

The cases of Diphtheria were mostly in the neighbourhood of Rhostryfan, Portdinorwic, and Llanddeiniolen. Some of these were of virulent type, and rapidly proved fatal.

In the district of Upper Clynnog an outbreak of Whooping Cough in August necessitated the closing of the Pantglas National School for a month.

During the months of March and April a considerable outburst of Influenza took place throughout the district. During these months it is estimated that between four and five hundred cases were attended by the medical men. During the year ten deaths were registered as being due to Influenza. Occasional cases seem to have occurred since the previous epidemic.

WATER SUPPLY.—During the year pressure has been brought to bear on house owners in this district to cease polluting Quellyn Lake, from which the water supply of Carnarvon is obtained. After a great deal of correspondence, and needless delay, measures to remove the most obvious causes of danger have been carried out. More still remains to be done.

The efforts of the Authority to provide a supply of water for Nantlle Vale from Llyn Dulyn have up to the present proved unavailing. Fortunately, the summer of 1895 was not a dry one, so that the partial water famine of previous years did not arise. At the same time, the bitter experience of the past makes the inhabitants of this district feel very anxious to have the scheme carried out, and cannot understand why there is so much delay. The engineer of the scheme is confident that instead of injuring the riparian owners down the stream, the proposed works will efficiently safeguard their interests, as the minimum flow down the stream will be a larger one than at present, owing to the storage capacity of the lake being greatly increased. This long delay in providing for the chief sanitary need of this populous district is greatly to be regretted. It appears that the chief difficulty is that of obtaining the consent of owners under Section 332 of the Public Health Act. The division of the main stream into several rivulets increases the number of riparian owners to such an extent that to obtain the consent of all is regarded as a hopeless task. I feel strongly that no expense is too great to secure the results which would be obtained by this scheme, and if an Act of Parliament would assist in putting an end to the present obstruction and delay, it would be well worth even that expense. Until an ample supply of water is obtained no great improvement of the sanitary condition of the large village towns of Nantlle Vale can be expected.

A provisional order has been obtained during the year by the Llanberis Water and Gas Company under the provisions of which a constant and efficient supply is assured to the consumers at a uniform scale of charges. A new reservoir for storage purposes is to be constructed, and the intake is to be extended higher up the stream so as to avoid all possible contamination.

As the result of referring the question of the water supply of Caeathraw to the Parish Council, it was once decided by the Authority to try to improve the present spring with its limited yield. This has been abandoned, and the Authority have reconsidered the question. The services of an Engineer have been engaged, and it is to be hoped that he will be successful in suggesting a scheme which will secure a plentiful supply of wholesome water for this village.

A new reservoir has been provided at Rhiwlas at a cost of £30. The supply of water was improved by sinking, as a new spring was tapped delivering over 4000 gallons a day. This will be a great boon to the inhabitants, as the previous supply was from a source much too near the surface, and consequently, in addition to being periodically small in amount, was also in danger of being polluted.

At Bontnewydd, a well which was exposed to pollution has been placed in a satisfactory condition. At Rhyd-ddu and Waenfawr new wells have been constructed. Some progress has to be reported in connection with the long delayed scheme for the supply of water to Portdinorwic. The Parish Council have taken the matter in hand, and have succeeded in obtaining the consent of the riparian owners. Profiting by their experience in connection with the Llanllyfni scheme the District Council have submitted the question of "consent" to their Solicitor. When they are assured that all legal rights to the water have been obtained, it is their intention to direct a scheme to be prepared by their Engineer. This is another instance of the desirability of Sanitary Authorities being endowed with greater statutory powers as to the water rights when the evidence is clear that the water is wanted for public purposes.

As to the water supply of Caesarea and Groeslon, which places have been previously reported upon as having only a scanty or suspicious supply available, nothing appears to have been done. The water supply of Caesarea is considered, by those well qualified to judge, to be more and more affected by the development of the neighbouring quarries.

Some steps towards supplying Rhostryfan with water from a new source were taken during the year. A sample of the water from a likely spring was analysed and yielded good results. The proposal seems to have fallen through for the present.

SEWERING.—A main sewer has been provided for Llanllyfni, at a cost to the Authority of a little over £30. The houses of the village, about 120 in number, are not yet connected with the sewer, but I trust

that this will soon be carried out. The Authority should insist on every house being connected in a proper manner.

At Llanberis, about 300 yards of new sewer have been constructed. A new sewer has also been made at Cæsarea.

At Rhyd-ddu, it has been decided by the Authority to provide a sewer for a row of houses. This work is deferred pending the decision of the Glaslyn District Council, to whose sewerage system this sewer is proposed to be connected.

At several places it is advisable to provide sewers so as to dispose effectually of the liquid refuse and prevent the fouling of soil which now takes place to a considerable extent. The following places may be referred to as examples:—

At the important village of Penygroes, though part of the village has been sewered, there is still a large portion unsewered, or else only provided with defective and dangerous rubble culverts.

The lower portion of Portdinorwic has been very generally sewered and the houses connected. For the upper portions of the village, sewers have been laid, but not many houses appear to have been connected. The reason assigned is that it was thought advisable to wait until a water supply was obtained before connecting these houses, but as at present percolation of sewage from the upper rows of houses inevitably takes place to the lower rows, it is now necessary to connect the houses of this portion of the village with the main sewer. With the excellent fall which exists, the sewers ought to be self-cleansing.

Disgwylfa Terrace, Llanrug, is still without its much needed sewer.

The village of Clynnog, has only a few rubble sewers. There is difficulty experienced in disposing of liquid refuse, especially where houses are without gardens. This village is well situated in the middle of good agricultural land, so that its sewage could be easily dealt with on the irrigation principle.

Sanitary Inspector's Record for 1895.

No. of complaints received	.. ..	170
No. of inspections of houses or premises	.. ..	1179
No. of orders given for the sanitary amendment of houses or premises	.. ..	65
No. of houses or premises cleansed, repaired or whitewashed		42
No. of houses disinfected or supplied with disinfectants	..	221

No. of house drains repaired, cleansed, or trapped	..	60
No. of house drains ventilated .. ..	..	6
No. of privies and W.C.'s new provided ..	..	17
No. of do. do. repaired ..	..	7
No. of W.C.'s supplied with water ..	..	4
No. of houses provided with a supply of water ..	..	58
No. of accumulations of manure and refuse removed	..	48
No. of animals removed .. ..	..	32
No. of seizures of diseased meat or food ..	..	none
No. of legal proceedings taken ..	..	none
No. of houses closed as unfit for habitation ..	..	none

DWYRAN RURAL SANITARY DISTRICT.

Area	..	..	..	15,252 acres.
Population, Census, 1881	..	..	..	3,494
„	„	1891	..	3,171
Estimated population, June, 1895	..	..	..	3,037

BIRTH-RATE.—The number of births registered during the year was 66, being at the rate of 21·7 per 1000 of population. During 1894, the birth-rate was 22·4 per 1000.

DEATH-RATE.—The deaths from all causes numbered 50, which gives a general death rate of 16·4 per 1000 of population. In 1894, the death-rate was 16·2 per 1000.

ZYMOTIC MORTALITY.—There was one death from a Zymotic cause, viz.:—Scarlet Fever. This was at the rate of 0·32 per 1000 of population. In 1894, the Zymotic Mortality was nil.

INFANTILE MORTALITY.—Eleven of the deaths were those of infants under one year of age, or in the proportion of 166 per 1000 registered births. In 1894, the Infantile Mortality was 130 per 1000 registered births.

DEATH-RATE AMONG PERSONS AGED 65 AND UPWARDS.—There were 22 deaths in this class, or at the rate of 7·2 per 1000 of population; as compared with 6·1 per 1000, which was the rate in 1894.

PHTHISIS DEATH-RATE.—Phthisis was the cause of six deaths, or at the rate of 1·9 per 1000. The rate in 1894 was the same.

DEATH-RATE FROM THE CHIEF RESPIRATORY DISEASES.—Ten of the deaths were due to the chief Lung diseases, or at the rate of 3·2 per 1000 of population. In 1894, the mortality in this class was at the rate of 1·3 per 1000.

The vital statistics of this purely agricultural district compare favourably with England and Wales generally, excepting that the birth-rate is very low and the infantile mortality somewhat above the average.

NOTIFICATION OF INFECTIOUS DISEASE.—During the twelve months seven notifications of infectious sickness were received, viz.:—

Scarlet Fever	..	..	..	5
Diphtheria	..	..	..	2

The cases of Scarlet Fever occurred at Llangaffo and Llanidan, one proving fatal.

The cases of Diphtheria occurred at Newborough and Pentreberw. The case at the latter place was introduced from Bangor.

The Sanitary Authority of this district has been alive to the necessity of safe water supplies for the various villages. The supply of water is, as a rule, a difficult question in Anglesey. At Dwyran two new wells have been provided at a cost of over £8. These have been rendered safe from surface pollution.

The public well at Llangaffo, which yields a good supply of water, has been placed in good order.

At Newborough a new sewer to serve 10 or 12 houses has been provided at a cost of over £10.

It would be a great boon to Newborough if the Authority could obtain a better supply of water for the village.

At Brynsiencyn a new sewer has been provided at a cost of £25 to serve a low lying portion of the village. The outfall is upon land. This improvement was greatly needed. One sewer still discharges on to the roadside a considerable quantity of sewage. It would be a great improvement to carry out the proposed extension so as to discharge on to land.

The sanitary condition of some of the smaller cottages at Llangaffo and Pentreberw has engaged the attention of the Authority. The attention of the owners has been drawn to several defects which are, unfortunately, still too common in rural districts. Some property owners have been found willing to carry out any reasonable improvements to remove danger to health, while others object to any expenditure for sanitary improvements, however necessary. My views as to what may be reasonably expected in all houses, although erected before the days of the Public Health Act and the Model Bye-laws, have been expressed in a special report to the Rural District Councils. This report furnishes what may be generally accepted as the minimum of the requirements which a house should possess before it can be "reasonably fit for human habitation" as is now required by the Housing of the Working Classes Act, 1890. The houses in this district on the whole are of superior character to those of many parts of Anglesey, where numerous examples of the one storeyed cottage with an earthen floor may still be found. Of the numerous houses which have been built in this district during the last twenty years, most are comfortable two-storeyed stone cottages. Their good features have, however, been damaged in many cases by pigstyes having been built

far within the limit which is specified in the Carnarvon Union Bye-laws. I trust the New Authority will insist upon their bye-laws being strictly carried out, and thereby prevent the danger which arises from the tendency of people in rural communities to bring the pig and his sty too near their own dwelling.

Sanitary Inspector's Record for 1895.

No. of complaints received	12
No. of inspections of houses or premises	142
No. of orders given for the sanitary amendment of houses or premises	14
No. of houses or premises cleansed, repaired, or whitewashed ..	2
No. of houses provided with a supply of water	50
No. of accumulations of manure and refuse removed	21
No. of animals removed	4
No. of seizures of diseased meat or food	none
No. of legal proceedings taken	none
No. of houses closed as unfit for habitation	none

OGWEN RURAL SANITARY DISTRICT.

Area	.. . . .	..	..	44,042 acres.
Population, Census, 1881	..	..	..	7,716
„ „ 1891	..	..	..	7,226
Estimated population, June, 1895	..	..	..	7,022

BIRTH-RATE.—During the year 1895, there were registered 166 births, being at the rate of 23·6 per 1000 of population. During 1894, the birth-rate was 25·4 per 1000.

DEATH-RATE.—The number of deaths registered from all causes was 136, or at the rate of 19·3 per 1000 persons living. In 1894, the general death-rate was 17·5 per 1000.

ZYMOTIC MORTALITY.—Three deaths were caused by the seven principal Zymotics, being at the rate of 0·42 per 1000 of population. Of these deaths, 1 was due to Enteric Fever, 1 to Diarrhœa, and 1 to Diphtheria. To these deaths there must be added two deaths which occurred in the Bangor Isolation Hospital of persons removed from this district. The corrected Zymotic Mortality is therefore 0·71 per 1000 of population. In 1894, the Zymotic Mortality was 1·55 per 1000.

INFANTILE MORTALITY.—Among infants under one year of age there were 25 deaths, or in the proportion of 150 per 1000 registered births. In 1894, the Infantile Mortality was at the rate of 138 per 1000 registered births.

DEATH-RATE AMONG PERSONS AGED 65 AND UPWARDS.—Of the deaths, 42 were of persons aged 65 and upwards, being at the rate of 5·9 per 1000 of population. During 1894, the death-rate among aged persons was 5·6 per 1000.

PHTHISIS DEATH-RATE.—Ten of the deaths were caused by Phthisis, being at the rate of 1·4 per 1000 of population. In 1894, the Phthisis death-rate was the same.

DEATH-RATE FROM THE CHIEF RESPIRATORY DISEASES.—The chief Lung diseases were the cause of ten deaths, or at the rate of 1·4 per 1000 of population. During 1894, the death rate in this group was 2·2 per 1000.

The vital statistics of the year exhibit a low birth-rate, with a general death-rate rather above that of England and Wales generally. It is to be noted that the death-rate has not been augmented by the more preventible diseases, as there is in most particulars an improvement upon the rest of the country. The death-rate from Phthisis and from

the chief Lung diseases, and the mortality among infants are slightly lower than the average, while the Zymotic Mortality is considerably lower.

INFECTIOUS DISEASE.—During 1895, 35 cases of infectious disease were reported as follows:—

Typhoid Fever	..	..	..	24	notifications.
Scarlet Fever	..	..	..	6	„
Diphtheria	..	..	..	4	„
Measles	..	..	..	1	„

During 1894, in the Bangor and Beaumaris Union 53 cases of infectious sickness were notified.

The cases of Typhoid Fever occurred at Minffordd, Llandegai, Penrhyn Park, and Douglas Hill. At Minffordd the disease was introduced into an overcrowded house by a sailor who came home ill from Silloth. With reference to the cases in the vicinity of Llandegai, careful enquiry failed to discover any more likely cause than that they had been in contact with cases which had previously occurred in the village. The water supply in several places was analysed and yielded excellent results. At Tanybwllch a considerable number of cases occurred from May to the end of October. In all, thirteen cases were reported from five houses. The sanitary condition of these houses was reported upon by a sanitary engineer who discovered that the rubble culverts which were in vogue at these houses as slop drains were defective and retained accumulations of deposit. Some of the cases were, no doubt, spread through the medium of milk which was sold contrary to orders from one of the houses.

Among the cases of Scarlet Fever, one was at Douglas Hill. Fortunately, it was possible to isolate the patient, and the disease did not spread. The other cases occurred in Aber at the end of the year.

The four cases of Diphtheria occurred at Aber in November, and in consequence of this outbreak, and the subsequent outbreak of Scarlet Fever, the National School had to be closed for several weeks.

Among the details of the sanitary work of the year have been the examination and analysing of several doubtful supplies of water. The Sanitary Authority is well advised in endeavouring to secure the various supplies of water from any possible contamination, and there is no doubt but that the public money cannot be better expended than in obtaining an ample and safe supply for all parts of the district. In some of the villages the only supply up to the present has been from pumps and

wells. These are a constant source of expense to the Authority, besides in some cases being open to possibility of pollution. It would be a great improvement if the present supply of Minffordd could be replaced by a constant service from the Bangor mains.

There has been a considerable interruption of the sanitary administration of this district owing to a change of Sanitary Inspectors. This has, unfortunately, rendered it impossible for me to obtain particulars of much of the work which has been carried out during the year. After considering a special report upon the older houses, the Sanitary Authority have decided to pay attention to this class, and have instructed the Inspector to report upon the sanitary condition of the worst houses known in this district.

The Notification of Infectious Diseases Act, 1889, was adopted at the close of the year by the Authority. This is a distinct step in the right direction. The Act came into force on January 1st, 1896.

The following Inspector's record of Sanitary work refers only to the last three or four months of the year.

No. of inspections of houses or premises	..	..	120.
No. of houses disinfected or supplied with disinfectants			7.
No. of house drains repaired, cleansed, or trapped	..		1.
No. of privies and W.C.'s new provided	..	..	7.
No. of accumulations of manure and refuse removed	..		36.

AETHWY RURAL SANITARY DISTRICT.

Area	..	..	..	..	36,424 acres.
Population, Census, 1881	..	..	..	..	8,942
„	„	1891	..	..	8,831
Estimated population, June, 1895	..	..	..	..	8,785

BIRTH-RATE.—There were registered during the year 208 births being at the rate of 23·6 per 1000 of population. The birth-rate in 1894 was 23·4 per 1000.

DEATH-RATE.—From all causes, 155 deaths were registered. These deaths were at the rate of 17·6 per 1000 of population. The general death-rate in 1894 was 14·4 per 1000.

ZYMOTIC MORTALITY.—Two of the deaths were caused by the principal Zymotics, or at the rate of 0·22 per 1000 of population. Of these one was caused by Enteric Fever, and one by Diarrhœa. In 1894, the Zymotic Mortality was the same.

INFANTILE MORTALITY.—22 of the deaths were those of infants under one year of age, or in the proportion of 105 per 1000 registered births. In 1894, the Infantile Mortality was 38 per 1000 registered births.

DEATH-RATE AMONG PERSONS AGED 65 AND UPWARDS.—There were 67 deaths in this class, or at the rate of 7·6 per 1000 of population. In 1894, the death-rate among aged persons was 7·8 per 1000.

PHTHISIS DEATH-RATE.—Phthisis was the cause of 12 deaths, or at the rate of 1·3 per 1000 of population. During 1894, the Phthisis death-rate was the same.

DEATH-RATE FROM THE CHIEF RESPIRATORY DISEASES.—These diseases were the cause of 16 deaths, or at the rate of 1·8 per 1000 of population. During 1894, the death-rate from the chief Lung diseases was 3·0 per 1000.

These vital statistics, with the exception of the birth-rate and the death-rate among aged persons, compare favourably with other districts. The general death-rate is somewhat higher than the very low death-rate recorded last year; the rise being chiefly due to a rise in the infant mortality. The Zymotic Mortality, like that of last year, was a low one.

INFECTIOUS DISEASE.—During the twelve months information was received of eight cases of infectious sickness, as follows : —

Scarlet Fever	..	..	..	..	3
Typhoid Fever	..	..	..	..	2
Diphtheria	..	..	..	..	2
Measles	..	..	..	..	1

The cases of Scarlet Fever, which were reported, occurred in an insanitary cottage near Llanddaniel, and in a house at Llanfair P.G. In both instances the disease was able to be kept within bounds.

Of the Typhoid cases, one was that of a young man at Penmynydd, who came home ill from Valley, suffering from the disease, which rapidly proved fatal. The disease only came to light through the Registrar's returns of death. In this case the bedding would have been used again after washing, but it was so palpably dangerously infected that it had to be ordered to be destroyed. Several cases are on record of Typhoid having been contracted through sleeping in infected beds. Subsequent inquiry at Valley failed to reveal any local origin of the disease. The other case was only a suspicious case near Gaerwen. The patient soon recovered from the disease, which did not spread.

The two cases of Diphtheria were mild cases at Moelydon Ferry. The disease was probably introduced from a distance, and, as far as is known, did not spread.

An outbreak of Measles in the neighbourhood of Penmynydd necessitated the closing of the school there for a month.

Besides these cases of infectious diseases in the district proper, five cases of Scarlet Fever occurred on board the training ship "Clio," moored in the Menai Straits. These were promptly removed to the Bangor Isolation Hospital, and the outbreak, which might have done serious mischief among the large number of boys on board, fortunately, did not spread further.

SANITARY WORK DURING THE YEAR.—In this district, as in the Ogwen district, owing to a change in sanitary officials, I have been unable to obtain particulars of all the sanitary work accomplished during the year.

At the request of the Llanfair P.G. Parish Council, a report upon the water supply of the village was prepared. This village, in common with most of the villages in Anglesey, is not favourably situated as regards a supply of water. As there is no high lying ground in the neighbourhood to serve as an area for collecting the rainfall, the

only sources of supply within reasonable distance are those made use of at the present time. Measures to improve the means of access to the present wells, and to render them proof against pollution, were advised.

Special inspections have been made in the parishes of Llandegfan and Llansadwrn in order to ascertain the condition of some of the older houses. Numerous sanitary defects were discovered, such as absence of privy accommodation, dilapidation, no landers or downspouts, and pigstye nuisances. Recommendations as to necessary sanitary improvement at houses near Llanddaniel have also been made. At Gaerwen, considerable improvement to house property has been effected in the way of placing houses in better repair, providing tiled floors for kitchens, and boarded floors for bedrooms, and providing privy accommodation. In this district there is considerable room for improvement of the sanitary condition of the older type of cottage, of which there are still numerous specimens, which it is high time that the owners should replace or improve.

The following Inspector's record of Sanitary work refers only to the last three months of the year :—

No. of complaints received ..	..	..	..	20
No. of inspections of houses or premises	..	..	..	60
No. of orders given for the sanitary amendment of houses or premises ..	..	..	..	24
No. of houses or premises cleansed	..	..	..	4
No. of houses disinfected or supplied with disinfectants	..	..	..	2
No. of houses drains repaired, cleansed, or trapped ..	..	..	..	1
No. of privies and W.C.'s new provided	(25 have been promised)			
No. of accumulations of manure and refuse removed	..	..	..	12

CONWAY RURAL SANITARY DISTRICT.

Area..	..	..	..	26,133 acres.
Population, Census, 1881	..	..	..	4,121
„	„	1891	..	4,770
Estimated population, June, 1895	..	..	..	5,040

BIRTH-RATE.—The number of births registered during 1895 was 146, being at the rate of 28·9 per 1000 of population.

DEATH-RATE.—There were registered from all causes 106 deaths, or at the rate of 21·0 per 1000 of population.

ZYMOTIC MORTALITY.—The seven principal Zymotic diseases were the cause of 9 deaths. Of these, 5 were caused by Typhoid Fever, 1 by Typhus Fever, one by Whooping Cough, and 2 by a “continued infectious fever.” These deaths were at the rate of 1·78 per 1000 of population.

INFANTILE MORTALITY.—There were 23 deaths among infants under one year of age, or in the proportion of 157 per 1000 registered births.

DEATH-RATE AMONG PERSONS AGED 65 AND UPWARDS.—Among persons in this class there were 38 deaths, being at the rate of 7·5 per 1000 of population.

PHTHISIS MORTALITY.—Phthisis was the cause of 5 deaths, or at the rate of 0·99 per 1000 of population.

DEATH-RATE FROM THE CHIEF RESPIRATORY DISEASES.—The chief Lung diseases were the cause of 11 deaths, being at the rate of 2·1 per 1000 of population.

The statistics of the year shew a fairly high birth-rate, as was the case last year. The general death-rate was higher than the average. This was chiefly caused by a high mortality among infants and aged persons, and in the class of all other diseases.

NOTIFICATION OF INFECTIOUS DISEASE.—During the year, 47 cases of infectious sickness were reported as follows :—

Typhoid Fever	..	..	..	..	39
Scarlet Fever	..	..	..	..	5
Continued Fever	..	..	..	..	2
Typhus Fever	..	..	..	..	1

During 1894, in the Conway Union, 10 cases of infectious disease were reported.

The great majority of the Typhoid Fever cases occurred in the village of Penrhynside. From this village, which has about 500 inhabitants, 36 cases of Typhoid Fever, and 2 of a continued infectious fever, were notified between October 10th and the close of the year. Of these cases, there proved fatal five, which were registered as being caused by Typhoid Fever, and one case which was certified as being due to Influenza.

The outbreak at first was obscure, as some of the cases did not present the usual features of Typhoid. Subsequently, the symptoms were more in keeping with Typhoid Fever of a very infectious type. To account for such a large outbreak the most usual channels by which the infection is carried are the water supply and the milk supply. Careful enquiry into these two has failed to prove that either of these has been guilty in the case of this outbreak.

The most probable theory is that the outbreak had some connection with an extensive outbreak of fever among swine in the neighbourhood, which occurred during September. In this outbreak over 140 pigs died, or had to be slaughtered, and it is evident that the disease among them was of a very infectious character. Any fever gaining an entrance to Penrhynside would be assisted to spread rapidly by the insanitary conditions which existed. These were chiefly (1) fouling of the soil and air in the vicinity of dwellings owing to the absence of sewers, and of arrangements for proper scavenging, and the existence of insanitary privies. (2) Scarcity of water. At this time the main supply was from a tap at the top of the village, the other taps being dry, owing to complete choking of pipes from corrosion and peaty deposit. Rain water in some cases was used owing to the scarcity of the tap service. These insanitary conditions are now in process of being remedied. An ample supply of water has already been obtained by laying a branch pipe for a distance of some miles from the new Cowlyd main. This will enable a constant supply to be maintained instead of the previous scanty and intermittent supply.

The difficulties and the delay in the carrying out of the scheme for sewerage the village appear now to be removed, and tenders for executing the scheme have been received. It is to be hoped that this urgent necessity will be proceeded with without any more delay.

The two schools of Glanwydden and Bodafon were closed for prolonged periods owing to the disarranged attendance occasioned by

the presence of the epidemic at Penrhynside, and other illness, such as Influenza and other Feverish colds.

The cases of Scarlet Fever occurred at Gyffin and Llanbedr.

The case of Typhus Fever came to light through the Registrar's returns after its fatal termination. It was the case of a farmer who lived in an out of the way mountain farm. When it is remembered that Typhus is now extremely rare in this country, the origin of the case is a mystery, as the patient had not been away from home to contract the disease, nor had any person or article arrived at the farm to introduce it.

Among other details the sanitary condition of some of the old rural cottages in the parish of Gyffin has been reported upon, and recommendations made as to the water supply of several houses.

GLAN CONWAY RURAL SANITARY DISTRICT.

Area	..	..	...	8,768 acres.
Population, Census, 1881	..	..	..	1,639
„	„	1891	..	1,544
Estimated population, June, 1895	..	..	..	1,504

BIRTH-RATE.—There was registered during the year 40 births, being at the rate of 26·5 per 1000 of population.

DEATH-RATE —From all causes, 38 deaths were registered. These were at the rate of 25·2 per 1000 of population.

ZYMOTIC MORTALITY.—There was no death from a Zymotic cause.

INFANTILE MORTALITY.—13 of the deaths were those of infants under one year of age, or in the proportion of 325 per 1000 registered births.

DEATH-RATE AMONG PERSONS AGED 65 AND UPWARDS.—In this class there were 8 deaths, being at the rate of 5·3 per 1000 of population.

PHTHISIS DEATH-RATE.—Two of the deaths were caused by Phthisis, or at the rate of 1·3 per 1000 of population.

DEATH-RATE FROM THE CHIEF RESPIRATORY DISEASES. — These diseases were the cause of 4 deaths, or at the rate of 2·6 per 1000 of population.

The vital statistics for this small district, which consists of only two parishes, show a fairly high birth-rate for an almost purely agricultural district, with a general death-rate almost balancing it, and considerably over the average. This high death-rate is caused chiefly by an unusually high proportion of deaths among infants, and of deaths in the class of diseases known “as all other diseases.” The death-rate from Zymotic causes was the satisfactory rate of Nil, while the mortality among aged persons, and that from Phthisis and the chief Lung diseases, was below the average.

NOTIFICATION OF INFECTIOUS DISEASE.—During the year no cases of infectious disease were reported from this district.

The sanitary history of this district, as apart from the Conway Rural Sanitary District has been uneventful throughout the year.

FESTINIOG URBAN SANITARY DISTRICT.

Area	16,323 acres
Population, Census, 1881	11,274
" " 1891	11,073
Estimated population, June, 1895	10,989

BIRTH-RATE.—The number of births registered during the year was 383, being at the rate of 34·8 per 1000 of population. During 1894, the birth-rate was 27·7 per 1000.

DEATH-RATE.—The deaths from all causes numbered 235, which gives a general death-rate of 21·3 per 1000 of population. The general death-rate in 1894 was 17·1 per 1000.

ZYMOTIC MORTALITY.—15 of the deaths were due to the chief Zymotic diseases. Of these, 11 were due to Diphtheria, 1 to Scarlet Fever, 2 to Measles, and 1 to Continued Fever. The Zymotic Mortality is therefore 1·36 per 1000 of population. In 1894, the Zymotic Mortality was 0·99 per 1000.

INFANTILE MORTALITY.—Among infants under one year of age there were 62 deaths, or in the proportion of 161 per 1000 registered births. In 1894, the Infantile Mortality was 150 per 1000.

DEATH-RATE AMONG PERSONS AGED 65 AND UPWARDS.—There were 52 deaths of persons in this class, being at the rate of 4·7 per 1000 of population. In 1894, the death-rate among aged persons was 3·8 per 1000.

PHTHISIS DEATH-RATE.—Of the deaths, 12 were due to Phthisis, being at the rate of 1·0 per 1000 of population. During 1894, the Phthisis death-rate was 1·6 per 1000.

DEATH-RATE FROM THE CHIEF RESPIRATORY DISEASES.—The chief Lung diseases caused 28 deaths, or at the rate of 2·5 per 1000 of population. The death-rate in this class during 1894 was 2·4 per 1000.

The birth-rate during the year was a high one, being 4·5 per 1000 higher than the average for England and Wales.

The general death-rate was considerably higher than that of 1894. This was due to an increase in the number of deaths classed as being due to "all other diseases," and also to an increased number of deaths at the two extremes of life.

The Zymotic Mortality was somewhat higher than in 1894. With the exception of the deaths due to Diphtheria, the deaths from Zymotic causes were very few in number. Of the deaths from Diphtheria, two occurred in January, one in March, one in May, four in July, one in September, one in October, and one in November.

In studying these statistics, it is only right to mention that the estimate of the present population is probably several hundreds too low. As there are no safe data for calculating the population other than the Census Returns, there is no satisfactory way of correcting the estimate. All the rates excepting the infant mortality, therefore, read slightly too high.

INFECTIOUS DISEASES.—During the year 1895, 603 notifications of infectious disease were received, as follows:—

Diphtheria	474
Scarlet Fever	89
Erysipelas	29
Croup	8
Continued Fever	3

In 1894, there were notified 365 cases of infectious sickness.

The epidemic of Diphtheria which first came to notice in September, 1893, has remained in the district ever since. During 1895, the number of cases notified each month has been as follows:—

January .. 21 cases	July .. 24 cases
February .. 21 „	August .. 12 „
March .. 16 „	September .. 60 „
April .. 4 „	October .. 119 „
May .. 10 „	November .. 108 „
June .. 19 „	December .. 60 „

It is worthy of note that the disease was at its lowest point during April and August when the school holidays were on. In October the epidemic became so general that the schools throughout the district had to be closed for three weeks, but this course did not yield the same good results as the previous closing of the schools did. The type of disease continued upon the whole to be a mild one. Of all the cases notified only about 2·4 per cent. proved fatal. During 1894, the mortality was 1·38 per cent. of notified cases.

As in the previous year, the months of greatest prevalence were September, October, November, and December.

CAUSE OF THE SPREAD.—The disease was no doubt spread throughout the district by the unnecessary mixing of the sick with the healthy. The directions given in every case both verbally and in black and white were very frequently disregarded. In about 60 per cent. of the cases notified, isolation of the sick, the chief essential to prevent the spread of the disease, was either not attempted or was not possible. It is, therefore, not surprising that the disease cannot be eradicated from the district.

The Scarlet Fever cases occurred irregularly throughout the year, and were scattered throughout the district. These were fortunately of a mild type, only one case out of 89 notified proving fatal.

The following reports deal with the health of this district during the three first quarters of the year :—

REPORT FOR THE QUARTER ENDING MARCH 31ST, 1895.

During the three months ending March 31st, 1895 there were registered in the Festiniog Urban Sanitary District 124 births and 67 deaths.

BIRTH-RATE.—The births were at the high rate of 45·0 per 1000 of population per annum, as compared with 23·5 per 1000 which was the rate during the corresponding quarter in 1894.

The birth-rate in England and Wales during the quarter was 32·1 per 1000 of population.

DEATH-RATE.—The deaths were at the annual rate of 24·3 per 1000 of population as compared with 18·8 per 1000, which was the rate during the first quarter of 1894.

The death-rate in England and Wales during the quarter was 22·8 per 1000 of population.

ZYMOTIC MORTALITY.—Of the deaths 4 were caused by the principal Zymotics, three of which were caused by Diphtheria and one by Scarlet Fever. These deaths were at the annual rate of 1·45 per 1000 of population, being at the same rate as during the corresponding quarter of 1894.

The Zymotic Mortality in England and Wales was at the annual rate of 1·34 per 1000 of population.

INFANTILE MORTALITY.—Among infants under one year of age there were 18 deaths, being in the proportion of 145 per 1000 registered births.

The infantile mortality during the corresponding quarter of last year was 169 per 1000 registered births.

MORTALITY AMONG PERSONS AGED 65 AND UPWARDS.—Among persons in this class there were 13 deaths, or at the annual rate of 4·7 per 1000 of population. During the corresponding quarter of last year the deaths among aged persons were at the rate of 6·5 per 1000 of population.

INFECTIOUS DISEASE.—During the quarter 81 notifications of infectious illness were received, as compared with 59 notifications during the first quarter of 1894.

These were as follows :—

Diphtheria	...	..	..	58
Erysipelas	..	..	..	13
Scarlet Fever	..	..	..	6
Croup	..	..	..	4

In every instance information has been received from your Sanitary Inspector according to a special form for enquiry into infectious cases.

While recently visiting some of these infectious cases I found that at Park Square the pail system is still adhered to, although a sewer has been laid to serve the houses, and lies within a few feet of the privy. I would advise that in all cases where it is possible to replace the pail closet by a proper water closet, that this be done, as the pail closet in most cases becomes insanitary, in hot weather, before the full pail is replaced at the usual period (2 weeks) by an empty one. I also feel, as I have pointed out before, that the period at which the pails are regularly replaced is too long. Excremental fluids and solids should not be retained near dwellings for longer periods than a week.

REPORT FOR THE QUARTER ENDING JUNE 30TH, 1895.

BIRTHS AND BIRTH-RATE.—During the quarter ending the 30th of June last, there were registered in your district 100 births. Calculating according to the usual rule, the estimated population of your district in June last was 10,989. These births were at the annual rate of 36·4 per 1000 of estimated population.

The general birth-rate of England and Wales during the same quarter was 30·8 per 1000 of population.

DEATHS AND DEATH-RATE.—During the quarter 69 deaths from all causes were registered in this district. This was at the annual rate of 25·1 per 1000 of population.

The general death-rate of England and Wales during the same period was 17·2 per 1000 of population.

ZYMOTIC MORTALITY.—Of the deaths, one, a case of Diphtheria, was due to the principal Zymotic diseases. This was at the annual rate of 0·36 per 1000 of population.

The death-rate from the principal Zymotic diseases for England and Wales was 1·32 per 1000 of population, and the death-rate from Diphtheria alone was at the rate of 0·20 per 1000.

INFANTILE MORTALITY.—Of infants under one year of age there were 21 deaths, being in the proportion of 210 per 1000 registered births.

The infantile mortality in England and Wales during the quarter was 129 per 1000 registered births.

AGED MORTALITY.—Among persons aged 65 and upwards there were 21 deaths. This was at the annual rate of 7·6 per 1000 of population.

The vital statistics of the second quarter of 1895 are compared with those of the corresponding quarters of 1893 and 1894 in the following table.

FESTINIOG U.S.D.	Death-rate per 1000 of population.	Zymotic Death-rate per 1000 of population.	Infantile Mor- tality per 1000 registered births.	Aged Mortality per 1000 of population.
Second Quarter, 1893	27·0	0·36	196	—
Second Quarter, 1894	18·4	1·08	102	3·6
Second Quarter, 1895	25·1	0·36	210	7·6

From these figures we observe that a high general death-rate prevailed during the quarter. This high death-rate was not due to a high mortality from the chief Zymotic diseases, in fact, the Zymotic

Mortality was below that of the country generally. To some extent it was due to a minor infectious disease, viz., Influenza, which caused 8 deaths during the quarter. It was also due to some extent to a high rate of mortality among infants and among aged persons.

NOTIFICATION OF INFECTIOUS DISEASE.—During the quarter, 54 notifications of infectious disease were received, as compared with 33 during the corresponding period of 1894. These 54 notifications were as follows :—

Diphtheria	..	..	..	33 cases
Scarlet Fever	..	..	..	15 „
Croup	..	..	..	3 „
Erysipelas	..	..	..	2 „
Continued Fever	..	..	..	1 „

Information has been received from your Sanitary Inspector with regard to every case notified. I regret I have to report that in numerous cases the patients are not properly isolated from the healthy members of the community for a sufficiently long period. In some cases isolation is not even attempted, though recommended in all cases and the dangers of non-isolation pointed out. These enquiries into all cases of infectious disease have given valuable information to your officials of the sanitary condition of different parts of the district. I have great pleasure in noticing the thorough and rapid manner in which the Sanitary Authority are carrying out sanitary improvements in the district. For whole streets and rows of houses new sewers properly constructed under the supervision of your own officials have been laid, and what is equally necessary, though not carried out in all the districts, all houses which are within a reasonable distance of each new sewer are compelled to connect their drains thereto as soon as the sewers are constructed. Numerous privies and pail closets have been converted into proper W.C's., several portions of the streets have been provided with impervious paving, and in several ways good sanitary progress has to be recorded.

The results of the enquiries I have made, according to the request of the Council, into the case of Ellen Griffith, a servant in the employ of Richard Prichard, Grocer, High Street, have confirmed the opinion of your Sanitary Inspector that it was a case of wilful exposure of an infected person and, therefore, a serious breach of the Sanitary Acts. It appears that this girl, though suffering from Scarlet Fever, and, in the opinion of the medical attendant, in an infectious state, was taken home to Lleyn by her mother as an ordinary passenger by the Narrow Gauge

Railway. No notice was given to the Railway Company, nor were proper precautions against spreading the disorder taken. It was evidently a grave breach of section 126 of the Public Health Act, 1875, and is, in my opinion, a case in which legal action should be taken for the protection of the community.

REPORT FOR THE QUARTER ENDING OCTOBER 31ST, 1895.

BIRTH-RATE.—During the third quarter of 1895, there were 90 births registered in your district. This was equal to the annual rate of 32·7 per 1000 of population.

The general birth-rate of England and Wales during the same period was 30·2 per 1000 of population.

DEATH-RATE.—There were 49 deaths registered from all causes during the same period, being at the annual rate of 17·8 per 1000 persons living.

The general death-rate of England and Wales during the third quarter was 17·4 per 1000 persons living.

ZYMOTIC MORTALITY.—Of the deaths, 7 were due to the principal Zymotic diseases, four being due to Diphtheria, one to Membranous Laryngitis, and one to Continued Fever. These 7 deaths were at the annual rate of 2·18 per 1000 of population.

The death-rate from the principal Zymotic diseases in England and Wales during the same period was 3·50 per 1000 of population. The Registrar General observes that the deaths from Diphtheria and Diarrhœa during last quarter were above the average.

INFANTILE MORTALITY.—Thirteen of the deaths were of infants under one year of age, or in the proportion of 144 per 1000 registered births.

The Infantile Mortality of England and Wales during the quarter was in the proportion of 201 per 1000 registered births. The Registrar General notes that this is considerably above the average.

MORTALITY AMONG AGED PERSONS.—Among persons aged 65 and upwards there were 9 deaths, being at the annual rate of 3·2 per 1000 of population.

The following table shows the mortality rates of last quarter as compared with those of the corresponding quarter in 1894.

FESTINIOG U.S.D.	Death-rate per 1000 of population	Zymotic Death- rate per 1000 of population.	Infantile Mor- tality per 1000 registered births.	Aged Mortality per 1000 of population.
Third Quarter in 1894	16·1	Nil.	151	2·5
Third Quarter in 1893	17·8	2·18	144	3·2

Although there is a rise in the mortality rates of the quarter as compared with those of last year, it is satisfactory to observe that in all respects they compare favourably with those of England and Wales generally.

INFECTIOUS DISEASES. —During the quarter the following cases of infectious diseases were notified :—

Diphtheria	..	..	..	96
Scarlatina ..	..	..	..	32
Erysipelas	..	..	..	2
Membranous Croup	..	..	..	1
Continued Fever	..	..	..	1
Total ..	..	..	..	132

During the corresponding quarter of 1894, 83 cases were notified, and during the same quarter in 1893, 138 cases.

Careful enquiry has been made by your late Sanitary Inspector in all of these cases, the results of which have been forwarded promptly to me. Ample evidence was obtained that the chief factor in the continuance of the infectious diseases has been the unnecessary mixing of the sick with the healthy. In nearly 50 per cent. of the cases notified during the quarter, isolation of the sick person does not seem to have been attempted, although in every case directions were given verbally and in black and white to do so. Unless this—the fundamental principle in the preventive treatment of diseases—is carried out in a community, it is useless to hope for outbreaks of infection to be checked as they might, and should be. In one glaring case of wilful exposure,

a person suffering from Scarlet Fever was conveyed by train as an ordinary passenger. The legal proceedings which were subsequently taken by direction of the Sanitary Authority were successful, and will no doubt assist in educating the public as to the duties of those in charge of the infectious sick.

SANITARY HISTORY OF THE YEAR.

WATER SUPPLY.—The houses of the district are all supplied with water. There was an ample supply throughout the year, excepting when interfered with by the long frost of February.

About 550 yards of new main were laid during the year, and thirty houses were newly supplied with water. The reservoirs and filters were inspected weekly by the surveyor or inspector.

SEWERAGE.—Good progress has been made with the sewerage of the district during the year. Sewers have been laid to serve a large number of houses situated between one extreme end of the district, Penrhos, Conglywal, and its centre. For this populous district about 1870 yards of new sewers have been laid.

At Llan Festiniog about 340 yards of sewer have been constructed. In Church Street, Bowydd Street, Benar View, and other portions of the district sewers have been laid. The total length of sewers laid during the year is about two miles.

In all cases where sewers were laid each house was connected by a proper drain, and W.C.'s with syphon cisterns provided. About 117 privies have been converted into W.C.'s.

SCAVENGING.—This has been performed in an exemplary manner considering the great difficulties to be surmounted.

The Bakehouses, "Barracks," Cowsheds, and Slaughterhouses were regularly inspected, and found in good order, excepting that in some of the "Barracks" there is a tendency to overcrowd and to neglect the byelaws as to cleanliness.

PAVING OF STREETS.—Considerable lengths of the main streets have been paved during the year.

YNYSCYNHAIARN URBAN SANITARY DISTRICT.

Area	5,543 acres.
Population, Census 1881	5,506
„ „ 1891	5,224
Estimated population, June, 1895 ..	5,107

BIRTH-RATE.—There were registered during the year 125 births. This number is at the rate of 24·4 per 1000 of population. The birth-rate during 1894 was 20·2 per 1000.

DEATH-RATE.—During the year there were registered from all causes 98 deaths, or at the rate of 19·1 per 1000 of population. In 1894, the general death-rate was 17·9 per 1000.

ZYMOTIC MORTALITY.—One death was ascribed to a Zymotic cause, namely, Typhoid Fever. The Zymotic Mortality for 1895 is therefore 0·19 per 1000 of population, as compared with 0·58 per 1000, which was the rate during 1894.

INFANTILE MORTALITY.—Of the deaths, 17 were of infants under one year of age, being in the proportion of 136 per 1000 registered births. The Infantile Mortality in 1894 was 105 per 1000.

DEATH-RATE AMONG PERSONS AGED 65 AND UPWARDS.—There were 33 deaths of persons in this class, being at the rate of 6·4 per 1000 of population. During 1894 the death-rate among aged person was 5·4 per 1000.

PHTHISIS DEATH-RATE.—Twelve of the deaths were due to Phthisis, being at the rate of 2·3 per 1000 of population. During 1894, the Phthisis death-rate was 2·1 per 1000.

DEATH-RATE FROM THE CHIEF RESPIRATORY DISEASES.—Twelve of the deaths were ascribed to the chief Lung Diseases, or at the rate of 2·3 per 1000 of population. In 1894, the death-rate in this class was 2·9 per 1000.

In the vital statistics for the year a low birth-rate is observed, while the general death-rate has slightly risen. This rise is contributed to by an increase in the deaths of infants and aged persons and in the class of “all other diseases.”

The Zymotic Mortality is creditably low, and the death-rate from the chief Respiratory Diseases shows an improvement. The single

death from a Zymotic cause, viz.: Typhoid Fever, was that of a young woman, who, no doubt, contracted the disease through visiting a friend who was ill with the disease in a neighbouring district.

INFECTIOUS DISEASE.—During the year 60 cases of sickness were notified:—

Diphtheria	..	..	..	21
Scarlet Fever	..	..	..	16
Measles ..	..	..	..	15
Typhoid Fever	..	..	..	4
Erysipelas	..	..	..	2
Croup ..	..	..	..	2

During 1894, 70 cases of infectious disease were notified.

Of the Diphtheria cases, only 4 were notified as actually Diphtheria. The remainder were notified as Diphtheritic Sore Throat. They occurred during October, November, and December, and, though evidently very infectious, were mild in character, and fortunately all those attacked recovered.

Of the Typhoid cases, three were traceable to neighbouring districts.

The cases of Scarlet Fever and Measles occurred all together during October and November. These were mild in type. Some children were detected going to school with desquamating skin. In consequence of this outbreak, the Board Schools of the district were closed for two weeks. This produced a marked diminution in the number of cases.

A considerable amount of sanitary work has been executed in this district during the year. Though no large schemes have been entered upon, yet it will be seen from the Sanitary Inspector's record that considerable efforts have been made to carry out the improvements which are required. The smaller, though essential details of providing houses with supplies of water, with new W.C.'s, repairing roofs and walls, have been paid especial attention.

SEWERAGE AND DRAINAGE.—260 yards of main sewer have been laid, and the drainage of a large number of houses has been provided for. The main sewers have been maintained in good order, the different sections being flushed weekly.

SCAVENGING.—To this important work, especial attention has been paid, and a systematic scheme for regularly scavenging all parts of the town in order has been in force. In this work two men and a horse and cart are employed constantly.

During the year over £300 was spent upon new footpaths, thereby adding to the very complete system of excellent tar pavement which this district enjoys.

The slaughter houses have been found in a fair condition whenever inspected.

The duties of the Dairies, Milkshops, and Cowsheds Order do not appear to have been strictly carried out in the past. In order to do this I would advise the Model Regulations to be adopted by the Authority.

There is no hospital for isolation of infectious cases for this district excepting the small cottage which was got ready at the time of the threatened Cholera invasion. For an important seaport like Portmadoc, liable at any moment to have dangerous infection imported, it would be a great boon to have a small attractive hospital in readiness for isolating the first cases of infectious disease.

The inspection of shipping is regularly carried out by the Sanitary Inspector. The vessels are, as a rule, found in a satisfactory condition.

Sanitary Inspector's Record for 1895.

No. of complaints received	14
No. of inspections of houses or premises	919
No. of orders given for the sanitary amendment of houses or premises	175
No. of houses or premises repaired or whitewashed ..	114
No. of houses disinfected or supplied with disinfectants ..	170
No. of house drains cleansed or trapped	71
No. of house drains ventilated	10
No. of privies and W.C.'s new provided	35
No. of do. do. repaired	71
No. of W.C.'s supplied with water	10
No. of houses provided with a supply of water	18
No. of accumulations of manure and refuse removed ..	2198
No. of animals removed	none
No. of seizures of diseased meat or food	none
No. of legal proceedings taken	none
No. of houses closed as unfit for habitation	2
No. of vessels inspected during the year. . . .	110

CRICCIETH URBAN SANITARY DISTRICT.

Area	..	..	..	..	471 acres.
Population, Census 1881	..	..	..	..	1,108
„	„	1891	..	..	1,410
Estimated population, June, 1895	..	..	..	..	1,536

BIRTH-RATE.—During the year 33 births were registered, being at the rate of 21·4 per 1000 of population. The birth-rate during 1894 was 17·9 per 1000.

DEATH-RATE.—The number of deaths registered from all causes in this district was 35, being at the rate of 22·7 per 1000 of population. The general death-rate in 1894 was 9·9 per 1000.

ZYMOTIC MORTALITY.—Of the deaths, one was due to one of the principal Zymotics, namely, Whooping Cough. The Zymotic Mortality was therefore 0·65 per 1000 of population. During 1894, the Zymotic Mortality was 2·65 per 1000.

INFANTILE MORTALITY.—Among infants under one year of age there were 8 deaths, or in the proportion of 242 per 1000 registered births. During the year 1894, the Infantile Mortality was at the rate of 111 per 1000 registered births.

DEATH-RATE AMONG PERSONS AGED 65 AND UPWARDS.—Among persons in this class there were 11 deaths, being at the rate of 7·1 per 1000 of population. In 1894, the mortality among aged persons was 2·6 per 1000.

PHTHISIS DEATH-RATE.—Two of the deaths were attributed to Phthisis, or at the rate of 1·3 per 1000 of population. During 1894, the Phthisis death-rate was 0·66 per 1000.

DEATH-RATE FROM THE CHIEF RESPIRATORY DISEASES.—The chief Lung diseases caused five deaths, or at the rate of 3·2 per 1000 of population, as compared with 1·3 which was the rate in 1894.

The birth-rate during the year was a low one, though there has taken place an improvement upon that of 1894. The general death-rate showed a considerable rise upon the exceptionally low death-rate of 1894, there being over twice as many deaths registered. To account for this rise, it is to be noted that the infantile mortality was more than twice that of last year, and that the number of deaths among aged persons from Phthisis, from the chief Lung diseases, and in the class known as “all other diseases” was considerably greater.

The mortality from the chief Zymotic diseases was a creditably low one.

NOTIFICATION OF INFECTIOUS DISEASE.—During the twelve months 6 notifications of infectious sickness were received. These were 4 of Scarlet Fever and 2 of Erysipelas.

In 1894, 26 cases of infectious diseases were notified.

The cases of Scarlet Fever occurred during January and February, and fortunately were able to be well isolated, so that the disease did not spread.

SANITARY WORK.—The Authority has given a great deal of attention to Public Health questions during the year. A Sanitary Committee was appointed in April, and has regularly met.

The water supply of the town has been thoroughly gone into, and the report of an engineer upon the present system and upon proposed schemes for supplying the district from other sources, such as Cwm Strallyn and Nantcall, has been obtained. Negotiations are also in progress for the acquisition of the works and rights of the present Water Company, subject to the approval of the Local Government Board being obtained.

SEWERING.—Several improvements to the main sewer in High Street have been effected and an extension of a sewer at the East End has been carried out. A loan has been obtained for constructing a new sewer at Penpaled. Owing to the sea gaining on the land in the neighbourhood of the outfall sewer at Abereistedd it was found necessary to deepen the sewer and lay new iron pipes at a lower level at a cost of over £100.

SCAVENGING.—Scavenging of the district is carried out from July to September.

The private slaughter houses have been fairly well kept.

Regulations as to Dairies and Cowsheds are being considered by the Authority, and will probably be adopted as recommended by the Sanitary Committee.

Sanitary Inspector's Record for 1895.

No. of complaints received	40
No. of inspections of houses or premises	360
No. of orders given for the sanitary amendment of houses or premises	1

No. of houses or premises cleansed, repaired, or whitewashed	..	1
No. of houses or premises disinfected or supplied with disinfectants		50
No. of house drains repaired, cleansed, or trapped	..	3
No. of privies or W.C.'s repaired	..	12
No. of W.C.'s supplied with water	..	a few
No. of houses provided with a supply of water	..	a few
No. of accumulations of manure and refuse removed	..	264
No. of animals removed	..	4

PWLLHELI URBAN SANITARY DISTRICT.

Area	1,087 acres.
Population, Census, 1881	3,242
,, ,, 1891	3,231
Estimated population, June, 1895 ..	3,227

BIRTH-RATE.—During 1894, 83 births were registered, being at the rate of 25·7 per 1000 of population. The birth-rate in 1894 was 24·7 per 1000.

DEATH-RATE.—From all causes, 83 deaths were registered, being at the rate of 25·7 per 1000 of population. Of these deaths, 6 were of persons dying in the Union Workhouse. If these be deducted, the corrected resident death-rate becomes 23·8 per 1000.

The gross general death-rate in 1894 was 22·6 per 1000, and the corrected death-rate was 20·4 per 1000.

ZYMOTIC MORTALITY.—Two of the deaths were caused by the principal Zymotic diseases. These were due to Diarrhœa. The Zymotic Mortality was at the rate of 0·61 per 1000 of population.

During 1894 the Zymotic Mortality was 0·92 per 1000.

INFANTILE MORTALITY.—The deaths among infants were 18 in number, or in the proportion of 216 per 1000 registered births. During 1894 the infantile mortality was in the proportion of 225 per 1000.

DEATH-RATE AMONG PERSONS AGED 65 AND UPWARDS.—Among persons at this age period there were 25 deaths. This number was at the rate of 7·7 per 1000 of population, as compared with 6·1 per 1000, which was the rate in 1894.

PHTHISIS MORTALITY.—Phthisis was the cause of 7 deaths, or at the rate of 2·1 per 1000 of population. During 1894 the death-rate from Phthisis was 2·4 per 1000.

DEATH-RATE FROM THE CHIEF RESPIRATORY DISEASES.—To these diseases were attributed 16 deaths, being at the rate of 4·9 per 1000 of population. During 1894, the death-rate from these diseases was 0·92 per 1000.

The vital statistics for the year shew an improving birth-rate, while the general death-rate is unfavourably high. The rise in the death-rate is due to a high mortality among infants and aged persons, and to

the group of Respiratory diseases. The death-rate from Zymotic causes and from Phthisis shows some improvement.

INFECTIOUS DISEASE.—Eleven cases of infectious disease were notified during the year. These were as follows:—

Scarlet Fever	..	..	..	7
Typhoid Fever	..	..	..	2
Erysipelas ..	..	..	..	2

The Scarlet Fever cases occurred during the months of January, November, and December. Great care was exercised, and the disease was fortunately kept from spreading. The father of one of the patients had to be prosecuted for allowing his son, while in an infectious state, to appear on the public street. A conviction was obtained, and this has doubtless had very salutary effect upon the public.

The Typhoid cases occurred in a house with insanitary conditions in close proximity. These have now been removed.

A considerable amount of sanitary work has been carried on during the year.

The conversion of insanitary privy middens of the town into W.C.'s has been proceeded with, and several new W.C.'s have been erected.

WATER SUPPLY.—The Waterworks Company have extended their own water main to the new part of the town, and a considerable number of houses has been supplied with water.

NUISANCES.—Several nuisances have been satisfactorily dealt with during the year. The nuisances arising from a slaughter-house in a most insanitary condition have been abated by the Authority.

PUBLIC SLAUGHTER HOUSE.—A considerable step in the right direction has been taken by the Authority, in obtaining a loan for the erection of a public slaughter-house. The contract has now been let for the sum of £549, and the building is to be ready in three months.

A systematic inspection of the district is being carried out by the Sanitary Inspector.

HOUSING OF THE WORKING CLASSES.—One house has been condemned as unfit for habitation.

CARNARVON URBAN SANITARY DISTRICT.

Area	2,214 acres.
Population, Census, 1881	10,258
" " 1891	9,804
Estimated population, June, 1895 ..	9,615

BIRTH-RATE.—The number of births registered during the year was 236. This number was at the rate of 27·2 per 1000 of population, as compared with 24·0 per 1000 which was the rate in 1894.

DEATH-RATE.—The number of deaths from all causes was 196, being at the rate of 20·3 per 1000 persons living. Of these, 11 were deaths in public institutions of persons from outside districts. If these be deducted, the death-rate among residents proper become 19·2 per 1000 persons living. The gross death-rate in 1894 was 18·9, and the death-rate among residents was 16·6 per 1000.

ZYMOTIC MORTALITY.—Of the deaths, 10 were attributed to the principal Zymotic diseases. Of these, 5 were caused by Diphtheria, 3 by Diarrhœa, and 2 by Enteric Fever. The Zymotic Mortality during the year was therefore 1·03 per 1000 of population. During 1894 the Zymotic Mortality was also 1·03 per 1000.

INFANTILE MORTALITY.—Among infants under one year of age there were 37 deaths, being in the proportion of 140 per 1000 registered births.

DEATH-RATE AMONG PERSONS AGED 65 AND UPWARDS.—Among persons at this period of life there were 59 deaths, or at the rate of 6·1 per 1000 of population. During 1894, the death-rate in this class was 5·3 per 1000 of population.

PHTHISIS MORTALITY.—Phthisis was the cause of 17 deaths, or at the rate of 1·7 per 1000 of population. During 1894 the death-rate from this disease was 1·2 per 1000.

DEATH-RATE FROM THE CHIEF RESPIRATORY DISEASES.—Forty-five of the deaths were attributed to these diseases, being at the rate of 4·6 per 1000 of population. During 1894 the death-rate from these diseases was 3·5 per 1000.

These statistics show a considerable rise in the birth-rate during the year, and also in the general death-rate. This rise in the death-rate corresponds to the rise throughout the country generally and is

accounted for principally by an increased number of deaths among persons aged 65 and upwards, and an increased mortality from Phthisis and the chief Lung Diseases, and in the class of "all other diseases." The Zymotic Mortality was the same as in 1894, and the infantile mortality showed a considerable lowering.

INFECTIOUS DISEASES.—During the year, 30 cases of infectious diseases were notified, as compared with 33 cases during 1894.

These were as follows:—

Diphtheria	..	..	..	12 cases
Erysipelas	..	..	..	10 „
Typhoid Fever	..	..	..	6 „
Scarlet Fever	..	..	..	2 „

Most of the cases of Diphtheria occurred during an outbreak in the month of June. The type of disease was a serious one and five of those attacked succumbed after a short illness. In several instances, as soon as the disease was recognized the condition of the patient was too critical to advise removal to hospital. The disease was practically confined to young children attending the Infant National School, which had to be closed for a period of two weeks. The drainage system of the school was found upon examination to be defective. This has now been placed in a satisfactory condition.

Three of the Typhoid Fever cases were probably imported from other districts, and the two cases of Scarlet Fever appear to have contracted the disease through friends from a neighbouring village visiting them.

Two patients have been isolated at the Borough Hospital during the year and one in the Militia Hospital.

SANITARY WORK.—The chief item of sanitary work carried out during the year was the diversion of the sewer serving one portion of the town into the main sewerage system of the district. By this diversion the sewage of about 140 houses now discharges into the Menai Straits, instead of into the estuary of the River Seiont, as previously. This work has cost £225.

The water supply has been abundant throughout the year to most parts of the town, excepting during the prolonged frost of February. During this period water had to be supplied by means of water carts to the houses, many of which were without any of their usual supply for several weeks. The damage occasioned by the frost to the branch

mains, service pipes and cisterns was very great. The supply of water to the higher parts of the town has not been satisfactory, owing to some extent to the rapidity with which corrosion takes place in the service pipes. The characteristics of pure and soft mountain waters, such as the Gwyrfai water, of attacking metals strongly, should be allowed for in laying new mains and service pipes. A scheme to improve the supply to the higher levels of the district has now been adopted by the Authority.

The sewerage system of the town has been in good order throughout the year. Regular flushing is carried out by the staff.

The scavenging has been systematically looked after. In the crowded parts of the town no ashpits are allowed, but scavenging takes place daily, so that there is no excuse for keeping the vicinity of dwellings in an uncleanly state. The outskirts of the town are scavenged three times weekly.

HOUSING OF THE WORKING CLASSES.—During the year 8 houses have been closed by order of the Magistrates, as being unfit for habitation. These were the one roomed, dark, ill-ventilated and damp tenements referred to in last year's report. The Sanitary Authority has not yet made use of their powers to provide better accommodation, and until this is done it is to be feared that there will not be much done in the way of abolishing the slums of the town. It is evident when slums exist in a town like Carnarvon, that the whole town suffers in reputation, not to speak of the danger to public health which is the inevitable result of crowded and insanitary dwellings. The public benefit to be derived by a town sweeping away its slums and dark places is so far-reaching and valuable in more than one direction, that it behoves the community not to rest satisfied with things as they are, but to be willing to undergo some expense and trouble so that an improvement such as this can be carried out, thereby keeping abreast of the spirit of the times. The existing slums of the town require a great proportion of the time of the Sanitary Inspector, but in spite of his constant efforts they still remain insanitary to those compelled to live in them, and unsightly and depressing to all who behold them.

My firm opinion is that the only satisfactory and thorough way by which this question can be coped with is for the Sanitary Authority to make use of their powers under the Housing of the Working Classes Act, and to declare such areas as the one known as Tanrallt as insanitary areas, and to direct an improvement scheme to be prepared. A consequence of this would be that the owners would obtain reasonable

but not exorbitant compensation, assessed by an arbitrator appointed by the Local Government Board. The Sanitary Authority is the only body which can deal in a comprehensive manner with property such as this area, where several owners, however wishful to improve their property, cannot individually do much to improve matters.

The Bakehouses, Licensed Cowsheds, and Slaughter-houses have been regularly inspected during the year.

Legal proceedings have been required in two instances.

Regular inspection of the shipping is carried out by the Sanitary Inspector. During 1895, 30 coasting vessels and four vessels from foreign ports were inspected. None of the vessels came from an infected port, nor was any seaman found suffering from any infectious disease. The defects noticed were remedied upon calling the attention of the masters thereto.

Sanitary Inspector's Record for 1895.

No. of complaints received	651
No. of houses, premises, &c., inspected	1503
No. of houses, premises, &c., cleansed, repaired or whitewashed	22
No. of houses disinfected or supplied with disinfectants	25
No. of house drains repaired, cleansed or trapped	67
No. of house drains ventilated	16
No. of privies and W.C.'s repaired	650
No. of W.C.'s supplied with water	80
No. of houses provided with a supply of water	73
No. of legal proceedings taken	2
No. of accumulations of manure and refuse removed	Daily.
No. of houses closed as unfit for habitation	8
No. of inspections of slaughter-houses	Weekly.

MENAI BRIDGE URBAN SANITARY DISTRICT.

Area	..	..	..	..	825 acres.
Population, Census 1881	..	..	..	..	1,619
„	„	1891	..	..	1,675
Estimated population, June, 1895	..	..	..	..	1,698

BIRTH-RATE.—The number of births registered during 1895 was 38, being at the rate of 22·3 per 1000 of population. In 1894 the birth-rate was 20·0 per 1000.

DEATH-RATE.—The deaths from all causes numbered 42, or at the rate of 24·7 per 1000 of population. Of these, one was that of a visitor, which should be deducted. The remaining 41 deaths were at the rate of 24·1 per 1000. The general death-rate in 1894 was 19·5 per 1000.

ZYMOTIC MORTALITY.—There were no deaths attributed to a Zymotic cause. In 1894 the Zymotic Mortality was 0·59 per 1000.

INFANTILE MORTALITY.—Among infants under one year of age there were 2 deaths, or in the proportion of 52 per 1000 registered births. The infantile mortality during 1894 was 117 per 1000.

DEATH-RATE AMONG PERSONS AGED 65 AND UPWARDS.—In this class there were 13 deaths, or at the rate of 7·6 per 1000 of population. During 1894 the death-rate at this period of life was the same.

PHTHISIS DEATH-RATE.—Phthisis was the cause of 4 deaths, or at the rate of 2·3 per 1000 of population. The Phthisis death-rate in 1894 was 1·1 per 1000 of population.

DEATH-RATE FROM THE CHIEF RESPIRATORY DISEASE.—There were 7 deaths caused by these diseases, or at the rate of 4·1 per 1000 of population. During 1894 the death-rate from the chief Lung Diseases was 2·9 per 1000.

The vital statistics of the year shew a rise in the birth-rate, which is, however, still low compared with the rest of the country. The general death-rate shows a considerable rise upon that of 1894, although the infantile mortality shows a great improvement, and the absence of any Zymotic Mortality is noteworthy. The rise is due to an increased number of deaths from Phthisis and the chief Lung Diseases and in the class of “all other diseases.”

INFECTIOUS DISEASES.—Throughout the year the district has been remarkably free from the chief infectious diseases. Only one case, that of Croup, was notified.

The Sanitary Authority have approached the Bangor Corporation with the view of obtaining the admission into the Borough Isolation Hospital of any cases of infectious disease which might occur in the Menai Bridge district, but their application has been refused.

The Water supply of the district, though ample for the greater part of the year, was barely sufficient during the autumn months, and required careful husbanding by cutting off the supply at nights. It is to be regretted that this limiting of the supply is necessary. During the year four houses have been newly supplied with water.

Some improvements have been effected to the sewerage system of this district by the provision of ventilating shafts at suitable spots. These have greatly lessened the objection of concentrated sewer gas escaping through the road gratings. The sewers have been regularly flushed throughout the year. A sewer has been constructed to serve two houses.

The question of scavenging the district has been under consideration by the Authority, but it is to be regretted that it was not decided to undertake this useful and necessary work. The chief objection which was felt to carrying out a system of scavenging was the fact that most of the houses of the district have gardens, and at present all refuse is dealt with by the householders in their own gardens. Experience, however, shows that this duty, if left to the ordinary householder, is frequently inadequately performed, and in many cases not performed at all.

Of the two slaughter-houses, one has now been closed by the Authority. The other is a well-constructed one, and kept in a satisfactory condition.

The three bakehouses are kept in a cleanly state. There are no common lodging-houses in the district.

HOUSING OF THE WORKING CLASSES.—The Sanitary Authority have attempted to improve the house accommodation of the working classes. A special inspection has been carried out of the more defective house property in the district, and a report submitted suggesting improvements with a view to secure better ventilation, better W.C. or privy accommodation, and freedom from damp.

BANGOR URBAN SANITARY DISTRICT.

Area	..	..	1,208 acres
Population, Census 1881	..	..	9,005
„ „ 1891	..	..	9,892
Estimated population, June, 1895	..	..	10,261

BIRTH-RATE.—The number of births registered during the year was 316, being at the rate of 30·7 per 1000 of population. During 1894, the birth-rate was 28·8 per 1000.

DEATH-RATE.—The number of deaths from all causes was 193. Of these, 6 were of persons from outside districts who died in the public institutions of the town. The gross death-rate is therefore 18·7 per 1000 persons living, and the death-rate among residents proper was 18·2 per 1000. During 1894, these rates were 18·2 per 1000 and 16·9 per 1000 respectively.

ZYMOTIC MORTALITY. — Twelve deaths were attributed to the principal Zymotic diseases. Of these, two were persons from the Ogwen district who were removed to the Isolation Hospital. The corrected Zymotic Mortality is 0·97 per 1000 of population. The Zymotic Mortality in 1894 was 0·09 per 1000.

Of these deaths, 4 were ascribed to Measles, 4 to Enteric Fever, 2 to Diarrhœa, and one each to Scarlet Fever and Diphtheria.

INFANTILE MORTALITY.—Among infants under one year of age there were 35 deaths, or in the proportion of 110 per 1000 registered births. During 1894, the Infantile Mortality was 162 per 1000 registered births.

DEATH-RATE AMONG PERSONS AGED 65 AND UPWARDS.—Of this class there were 56 deaths, or at the rate of 5·4 per 1000 of population. In 1894, the mortality among aged persons was 6·7 per 1000.

PHTHISIS DEATH-RATE.—To Phthisis were attributed 18 deaths, or at the rate of 1·7 per 1000 of population. During 1894, the Phthisis death-rate was 1·4 per 1000.

DEATH-RATE FROM THE CHIEF LUNG DISEASES.—These diseases were the cause of 28 deaths, or at the rate of 2·7 per 1000 of population. During 1894, the death-rate from these diseases was 2·0 per 1000.

The vital statistics of 1895 show a rise upon even the high birth-rate of 1894. The general death-rate shews a rise upon that of 1894. The gross general death-rate is identically the same as the general

death-rate for England and Wales, and the death-rate among residents is slightly lower. This rise is chiefly due to an increase in the number of deaths from Phthisis, the chief Respiratory Diseases, in the class of "all other diseases," and in the Zymotic Mortality. The Zymotic Mortality, although higher than in 1894, is considerably lower than the average for the country generally. The infantile mortality and the mortality among aged persons show a considerable improvement upon the previous year.

INFECTIOUS DISEASE. — During the year 58 cases of infectious disease were notified as follows:—

Scarlet Fever	..	..	..	29
Typhoid Fever	..	..	..	11
Erysipelas	..	..	..	8
Diphtheria	..	..	..	5
Croup ..	..	..	..	2
Smallpox	..	..	..	1
Continued Fever	..	..	..	1
Puerperal Fever	..	..	..	1

The cases of Scarlet Fever occurred irregularly throughout the year. The cases occurred almost entirely among children, only three being notified over 14 years of age. To account for its spread, it is to be feared that those in charge of the patients did not call in a medical man upon the first symptoms, as in a considerable number of cases the patients were found to be in the desquamative stage when notified. As this would mean many days during which others would be exposed to infection, it is not to be wondered that the disease spread.

The Enteric cases occurred mostly during August, September, and October. Four were of children of one family. In most of these no trace of the direct cause could be found. In others a possible cause was found in an insanitary lavatory in a neighbouring district, suspicious water in a neighbouring district, eating uncooked cockles from the Straits, and by direct contact through nursing previous cases.

The cases of Diphtheria occurred during September, October, and December. Two of the cases had been exposed to insanitary conditions through defective drains.

The case of Smallpox was that of a resident, who visited relations in a neighbouring district, when several Smallpox cases existed in the house. These relations very culpably tried to hide the fact of the illness being present in the house. The patient was isolated as soon as recognized, and all who were known to have come in contact, or who would be likely to come in contact with her, were vaccinated, and

fortunately the disease, which was of a serious type, did not spread to a single case.

The Isolation Hospital, on this occasion, proved invaluable. Since its opening in March, 1895 (formally opened by the Mayoress in January) it has been continually occupied by patients. The Sanitary Authority has been put to considerable expense in furnishing and maintaining the hospital, owing to a large number of Scarlet Fever cases which have required removal. At the same time I feel strongly that the public funds cannot be better expended than in this direct attempt to lessen the amount of preventible disease and death. During the year 19 cases were isolated in hospital. Of these 13 were of Scarlet Fever, 5 of Enteric Fever, and one of Smallpox.

To further improve the efficiency of the hospital, the Authority has appointed an experienced nurse to be in constant charge, and has also decided to erect a steam disinfecter.

Besides this important addition to the public health administration of the town, several other sanitary items are worthy of note.

WATER SUPPLY.—The water supply during the year has been good and abundant. In Upper Bangor and Glanadda some improvements to the water supply have been carried out. The Authority are now considering the advisability of providing a new reservoir to further provide for the needs of Upper Bangor, a portion of the borough which has rapidly grown during the last few years.

SEWERAGE.—A new branch sewer about 260 yards in length has been constructed to serve property known as Caederwen. Several old drains have been replaced by new in Upper and Lower Bangor. The smoke testing machine—the Ashphyxiator—which is in use in this district has been found very useful in discovering defective drains.

A special inspection has been made by the Sanitary Inspector of the Common Lodging-houses, and a report submitted upon their sanitary condition. Casual night visits have also been paid, with the result of discovering overcrowding in several instances. In one case legal proceedings were taken, and a conviction obtained.

The Slaughterhouses, Bakehouses, Cowsheds, and Dairies have been kept under supervision, and found upon the whole satisfactory. The Slaughterhouses have been provided with a large copy of the byelaws for exhibition in a prominent position. The Market is visited weekly, and articles of food exposed for sale are regularly inspected.

Several sanitary defects found in the 'Tailors' Workshops have been remedied during the year.

BETHESDA URBAN SANITARY DISTRICT.

Area	..	...	..	899 acres
Population, Census 1881	..			6,969
„ „ 1891	..			5,799
Estimated population, June, 1895	..			5,312

BIRTH-RATE.—The number of births registered in this district during 1895 was 155, or at the rate of 29·1 per 1000 of population. During 1894, the birth-rate was 27·4 per 1000.

DEATH-RATE.—From all causes, there were registered 119 deaths, or at the rate of 22·2 per 1000 persons living. In 1894, the general death-rate was 23·2 per 1000.

ZYMOTIC MORTALITY.—The principal Zymotics were the cause of 3 deaths, being at the rate of 0·56 per 1000 of population. The Zymotic Mortality in 1894 was 2·02 per 1000. Of these deaths, two were caused by Diarrhœa and one by Enteric Fever.

INFANTILE MORTALITY.—Among infants under one year of age there were 31 deaths, or in the proportion of 200 per 1000 registered births. The Infantile Mortality during 1894 was 174 per 1000 registered births.

DEATH-RATE AMONG PERSONS AGED 65 AND UPWARDS.—At this period of life there were 33 deaths, or at the rate of 6·2 per 1000 of population. During 1894, the death-rate in this class was 5·3 per 1000.

PHTHISIS DEATH-RATE.—To Phthisis were ascribed 13 deaths, or at the rate of 2·4 per 1000 of population. In 1894, the Phthisis death-rate was 1·6 per 1000.

DEATH-RATE FROM THE CHIEF RESPIRATORY DISEASES.—The chief Lung diseases were the cause of 15 deaths, or at the rate of 2·8 per 1000 of population. The death-rate from these diseases during 1894 was 3·8 per 1000.

The birth-rate in this district during the year was a fairly high one, being nearly equal to that for England and Wales generally. The general death-rate shows an improvement upon last year, though it is still above the average. The Zymotic Mortality shows a creditable improvement, but the Infantile Mortality, as was the case in 1894, is considerably above the average for England and Wales.

The death-rate among aged persons and that from Phthisis shows some amount of rise.

INFECTIOUS DISEASE.—During the year the district has been upon the whole remarkably free from infectious diseases as far as can be ascertained without the aid of the Notification Act. Only five cases have come to my knowledge. These were all cases of Enteric Fever which occurred in a portion of the district which possesses numerous old and insanitary specimens of cottage property. One of these cases proved fatal.

SANITARY WORK.—*Water Supply*.—During the year no houses have been newly supplied with water from the public mains. A few W.C.'s have been newly supplied with water.

The sewage farm continues to do good work, but gets waterlogged occasionally. Though the area of land has been excellently laid out, still it is only sufficient for effectually purifying the sewage by every portion of the land obtaining regular periods of rest, and by carefully attending to the surface of the furrows and channels.

The bakehouses and slaughterhouses have been regularly visited by the Sanitary Inspector, and found in good order.

Housing of the Working Classes.—The Authority have endeavoured to improve the sanitary condition of some of the oldest and most insanitary of the cottages of the district. Three special reports have been submitted describing the sanitary defects of a number of houses. Eleven were in such a bad state that they had to be closed as unfit for habitation, while others had serious sanitary defects.

The defects were such as the following:—

1. Dilapidation.
2. Dampness due to absence of landers and downspouts, and to banking of soil against the walls, frequently to the eaves.
3. Insufficient cubic space and means of ventilation.
4. Absence of or defective privy or W.C. accommodation.

To render these houses fit for human habitation I specified the following requirements:—

1. To provide landers and downspouts, and to render the roofs and walls rainproof.
2. To provide at least 300 cubic feet of space of bedroom accommodation per inmate.
3. To provide in the back wall of each room a good sized window to open.

4. To provide for each house a sufficient water closet, connected with the district sewer.

Even these reasonable requirements have not been readily granted by the owners, as one would expect, but have been obstinately objected to even in a court of law.

Sanitary Inspector's Record for 1895.

No. of complaints received	9
No. of inspections of houses or premises	163
No. of orders given for the sanitary amendment of houses or premises	8
No. of houses or premises cleansed, repaired or whitewashed ..	2
No. of houses disinfected or supplied with disinfectants ..	9
No. of house drains repaired, cleansed, or trapped	20
No. of W.C.'s new provided	5
No. of privies do.	3
No. of privies and W.C.'s repaired	5
No. of W.C.'s supplied with water	3
No. of accumulations of manure and refuse removed	8
No. of animals removed (pigs)	33
No. of seizures of diseased meat or food	none
No. of legal proceedings taken	2

LLANFAIRFECHAN URBAN SANITARY DISTRICT.

Area	..	..	..	..	4,434 acres.
Population, Census, 1881	..	..	..	..	2,041
„	„	1891	..	..	2,407
Estimated population, June, 1895	..	..	..	..	2,559

BIRTH-RATE.—There were 56 births registered during the year, or at the rate of 21·4 per 1000 of population. During 1894, the birth-rate was 26·1 per 1000.

DEATH-RATE.—There were registered from all causes 39 deaths, being at the rate of 15·6 per 1000 persons living. Of these, three were deaths of visitors. The remaining 36 deaths were at the rate of 14·0 per 1000, which is therefore the death-rate among residents. The gross death-rate in 1894 was 15·4 and the resident death-rate was 14·6 per 1000.

ZYMOTIC MORTALITY.—One death was attributed to a Zymotic disease, viz: Enteric Fever. This case was an imported one. This gives a Zymotic Mortality of 0·39 per 1000. During 1894, the Zymotic Mortality was nil.

INFANTILE MORTALITY.—Among infants under one year of age there were 7 deaths, being in the proportion of 125 per 1000 registered births. During 1894 the Infantile Mortality was 151 per 1000 registered births.

DEATH-RATE AMONG PERSONS AGED 65 AND UPWARDS.—There were 14 deaths among persons at this period of life, being at the rate of 5·4 per 1000 of population. During 1894, the death-rate in this class of persons was 2·3 per 1000.

PHTHISIS DEATH-RATE.—Phthisis was the cause of 6 deaths, or at the rate of 2·3 per 1000 of population. During 1894, the Phthisis death-rate was 1·9 per 1000.

DEATH-RATE FROM THE CHIEF RESPIRATORY DISEASES.—Ten deaths were caused by the chief Lung diseases, being at the rate of 3·9 per 1000 of population. The death-rate from these diseases during 1894 was 3·1 per 1000.

The birth-rate during 1895 was an exceptionally low one. The death-rate was a creditably low one, and shows some improvement upon the low rate of 1894. The Infantile Mortality shows a lowering upon that of 1894, while the Zymotic Mortality, the death-rate among aged persons, and that from the chief Lung diseases, show a slight rise.

The district has been throughout the year almost free from infectious disease. Only one case, that of a young woman suffering from Enteric Fever, came to light. The patient came home ill from Waterloo.

SANITARY WORK.—During the year good progress has been made in the work of connecting house drains with the sewerage system. As will be noticed in the Sanitary Inspector's record, a considerable number of house drains have also been ventilated. A large number of new W.C.'s have been built and supplied with water.

A step in the right direction has been the adoption by the Authority of the Infectious Diseases and Prevention Acts. These are now in force since January 11th, 1896.

The Authority has also adopted Model Regulations with regard to Dairies, Cowsheds, and Milkshops.

The necessary work of scavenging the district is also carried out by the Authority. House refuse is removed twice weekly.

HOUSING OF THE WORKING CLASSES.—At the present time, owing to good trade, the houses available for working class families are hardly numerous enough for their requirements. In consequence, some overcrowding was found to exist. A special report upon this overcrowding has been submitted, and the Authority have successfully dealt with it.

Sanitary Inspector's Record for 1895.

No. of complaints received	..	..	..	50
No. of inspections of houses or premises	..	..	..	71
No. of orders given for the sanitary amendment of houses or premises	..	..	..	153
No. of houses repaired, cleansed, or whitewashed	..	..	..	5
No. of houses disinfected or supplied with disinfectants	..	..	..	5
No. of house drains repaired, cleansed, or trapped	..	..	..	8
No. of house drains ventilated	..	..	..	37
No. of privies and W.C.'s new provided	..	..	..	31
No. of do. do. repaired	..	..	..	15
No. of W.C.'s supplied with water	..	..	..	66
No. of houses supplied with water	..	..	..	8
No. of accumulations of manure and refuse removed	..	..	..	400
No. of animals removed	..	..	..	5
No. of seizures of diseased meat or food	..	..	..	none
No. of legal proceedings taken	..	..	..	none
No. of houses closed as unfit for habitation	..	..	..	none

PENMAENMAWR URBAN SANITARY DISTRICT.

Area	..	..	..	3,819 acres.
Population, Census 1881	..	..	..	2,122
" " 1891	..	..	..	2,710
Estimated population, June, 1895	..	..	..	2,955

BIRTH-RATE.—There were registered 86 births during the year, or at the rate of 29·1 per 1000 of population. The birth-rate during 1894 was 26·2 per 1000.

DEATH-RATE.—The number of deaths from all causes was 58, being at the rate of 19·6 per 1000 persons living. One death was that of a visitor. Deducting this death, the corrected death-rate becomes 19·2 per 1000. The general death-rate in 1894 was 14·5 per 1000.

ZYMOTIC MORTALITY.—There were no deaths caused by the Zymotic diseases.

INFANTILE MORTALITY.—Ten of the deaths were of infants under one year of age, or in the proportion of 116 per 1000 registered births. The Infantile Mortality during 1894 was 197 per 1000 registered births.

DEATH-RATE AMONG PERSONS AGED 65 AND UPWARDS. — Among persons at this period of life there were 21 deaths, or at the rate of 7·1 per 1000 of population. During 1894, the death-rate among aged persons was 3·4 per 1000.

PHTHISIS DEATH-RATE.—Phthisis was the cause of 4 deaths, or at the rate of 1·3 per 1000 of population. In 1894, the mortality from Phthisis was 2·0 per 1000.

DEATH-RATE FROM THE CHIEF RESPIRATORY DISEASES.—To these diseases were ascribed 5 deaths, or at the rate of 1·6 per 1000 of population. During 1894, the death-rate from the chief Lung diseases was 1·3 per 1000.

The vital statistics shew a birth-rate considerably higher than that of last year, being almost the same as that for England and Wales generally. The general death-rate shews a marked rise upon the low death-rate of 1894, and is slightly above the average for England and Wales. The absence of Zymotic Mortality is noteworthy. The mortality among infants and that from Phthisis show a satisfactory reduction. The rise in the general death-rate is chiefly due to an increased number of deaths in the class of "all other diseases," and in the class of aged persons.

INFECTIOUS DISEASES.—The district shewed a very creditable freedom from infectious diseases throughout the year. Only one case of mild Scarlet Fever and one of Erysipelas were notified.

SANITARY WORKS.—Considerable extensions of the water supply of the district have been effected. A new service tank to hold 100,000 gallons has been constructed of concrete at a cost of £850. By means of this tank the houses upon the higher levels of the district can be now supplied.

During the long frost some of the service pipes were frozen up. To supply the houses which were thus deprived of water, stand-pipes were fixed on the water main in different localities to supply water at a certain time each day. This plan acted satisfactorily until the thaw.

The sewerage system has been maintained in good condition. 200 yards of new 8 inch. sewers have been laid, as well as 772 yards of 4 inch. and 6 inch. drains.

The bakehouses, cowsheds, and slaughterhouses have been kept under proper supervision.

Housing of the Working Classes.—The Authority has moved in the direction of improving the older house property in the district. Two dilapidated cottages, considered unfit for habitation, have been taken down. The scarcity of suitable house accommodation is shewn by the fact that the evicted tenants were obliged to move outside the district.

A systematic inspection has been made of the old village of Dwygyfylchi, and a report upon the sanitary condition of the same submitted to the Authority. Various sanitary defects were observed in some of the houses, such as want of repair, dampness, small cubic space in the bedrooms, insufficient means of ventilation, earthen floors, defective or absent privy accommodation, and no provision for drainage. The water supply of the village was also considered unsatisfactory. Recommendations to remedy these defects were made in the report. There is no doubt but that there is now great need of houses suitable for working men's families in the district. At present considerable overcrowding occurs.

The Authority, in conjunction with the Conway Urban and Rural Authorities, have taken steps with a view to provide their district with an isolation hospital. It is to be hoped that a satisfactory settlement can be soon arrived at.

Sanitary Inspector's Record for 1895.

No. of inspections of houses	..	..	..	261
No. of W.C.'s new provided	..	..	..	38
No. of old pan closets replaced by modern ones	..	..	..	3
No. of old privies replaced by W.C.'s	..	..	..	10
No. of new yard gullies	..	..	..	48
No. of drains ventilated	..	..	..	10

CONWAY URBAN SANITARY DISTRICT.

Area	..	..	..	3,449 acres.
Population, Census 1881	..	..		3,254
„	„	1891	..	3,442
Estimated population, June, 1895	..			3,520

BIRTH-RATE.—During the year, 127 births were registered (the same as in 1894). The birth-rate was therefore 36·0 per 1000 of population. During 1894, the birth-rate was 36·2 per 1000.

DEATH-RATE.—The number of deaths from all causes was 95, being at the rate of 26·9 per 1000 of population. Of these, 10 were of persons from outside the district who died in the Union Workhouse. The remaining 85 deaths were at the rate of 24·1 per 1000, which is the death-rate among residents.

ZYMOTIC MORTALITY.—Two of the deaths were caused by the chief Zymotic diseases, or at the rate of 0·56 per 1000 of population. Both of these deaths were due to Diarrhœa. The Zymotic Mortality during 1894 was 0·57 per 1000.

INFANTILE MORTALITY.—Among infants under one year of age there were 32 deaths, being in the proportion of 251 per 1000 registered births. During 1894, the Infantile Mortality was 173 per 1000 registered births.

DEATH-RATE AMONG PERSONS AGED 65 AND UPWARDS.—In this class there were 25 deaths, or at the rate of 7·1 per 1000 of population. In 1894, the death-rate among aged persons was 5·1 per 1000 of population.

DEATH-RATE FROM PHTHISIS.—Phthisis was the cause of 4 deaths, or at the rate of 1·1 per 1000 of population. In 1894, the Phthisis death-rate was 1·9 per 1000.

DEATH-RATE FROM THE CHIEF RESPIRATORY DISEASES.—The chief Lung diseases were the cause of 10 deaths, or at the rate of 2·8 per 1000 of population. In 1894, the death-rate from these diseases was 4·2 per 1000.

The vital statistics of the year show a noteworthy high birth-rate. As in 1894, this district heads the list of all the Carnaryonshire districts in the rate of births.

The general death-rate is also high, even after making allowance for the deaths of non-residents in the Union Workhouse. The death-rate is influenced unfavourably, as in 1894, by an excessive number of deaths among infants under one year of age, by a high mortality among aged persons, and in the class of "all other diseases."

The Zymotic Mortality is a low one, and the death-rate from Phthisis and the chief Lung diseases is below the average.

INFECTIOUS DISEASE.—During the year the district has been remarkably free from infectious disease. Only one case has been notified, as compared with 8 cases in 1894. The single case was that of a girl suffering from Scarlet Fever, who probably contracted it from the neighbouring district, where several cases prevailed at the time.

SANITARY WORK.—A special report of a systematic survey of the whole town and of the village of Gyffin was presented in January. This report dealt with the general condition and construction of the dwelling houses, overcrowding, the crowding of houses upon area, water supply, sewerage, the disposal and removal of excremental and house refuse, the common lodging houses, public bakehouses and cow-sheds, and also pointed out various nuisances.

The abundant supply of water now available from the Cowlyd mains has materially assisted in improving the sanitary condition of several parts of the town. The numerous midden privies and cesspools of the town are now being replaced by proper W.C.'s and trapped yard gulleys. There is still room for considerable advance in this direction. It is to be regretted that the village of Gyffin has not yet been placed in a sanitary condition, though really an urgent case. A considerable extension of the sewerage system is required for various parts of the town and outskirts.

During the year 8 houses have been closed as unfit for habitation.

The only slaughterhouse has been found on all occasions to be well kept.

The bakehouses are maintained satisfactorily.

The Authority is moving in the direction of providing an Isolation Hospital for infectious diseases. It is to be hoped that the negotiations which are in progress with the two neighbouring Authorities will result in a successful issue, for the undoubted benefit of their several districts.

During the year a change in the sanitary staff has occurred, which has rendered it impossible to obtain the details of sanitary work carried out during the first nine months of the year.

Sanitary Inspector's Record for the last three months of 1895.

No. of complaints received	..	..	..	15
No. of inspections of houses or premises	..	..	..	161
No. of orders given for the sanitary amendment of houses				
or premises	..	...	..	30
No. of houses or premises repaired	..	..	..	21
No. of houses disinfected or supplied with disinfectants			..	7
No. of house drains cleansed or trapped		..	..	25
No. of house drains ventilated	..	..	..	5
No. of W.C.'s new provided	..	..	..	15
No. of W.C.'s repaired	..	..	..	26
No. of accumulations of manure and refuse removed			..	1
No. of animals removed	..	..	..	none
No. of seizures of diseased meat or food		..	..	none
No. of legal proceedings taken	..	..	..	none
No. of houses closed as unfit for habitation		..	..	none

LLANDUDNO.

Area	2,835 acres
Population, Census 1881	4,807
" " 1891	7,348
Estimated population, June, 1895 ..	8,407

BIRTH-RATE.—There were registered during the year 201 births, being at the rate of 23·9 per 1000 of population. The birth-rate during 1894 was 22·3 per 1000.

DEATH-RATE.—From all causes there were 147 deaths registered, which was at the rate of 17·4 per 1000 persons living.

Of these 147 deaths, 26 were stated to be visitors. The remaining 121 deaths were at the rate of 14·3 per 1000.

The death-rate among residents in 1894 was 13·2 per 1000.

ZYMOTIC MORTALITY.—During the year, 18 deaths were caused by the principal Zymotic diseases, 1 being due to Scarlet Fever, 1 to Diphtheria, 2 to Whooping Cough, 1 to Enteric Fever, and 13 to Diarrhoea. The Zymotic Mortality is therefore 2·14 per 1000 of population, as compared with 1·47 per 1000, which was the Zymotic Mortality in 1894.

INFANTILE MORTALITY.—Of infants under 1 year of age there were 47 deaths, or in the proportion of 233 per 1000 registered births. The Infantile Mortality in 1894 was 142 per 1000 registered births.

DEATH-RATE AMONG PERSONS AGED 65 AND UPWARDS. — Among persons at this period of life there were 27 deaths, which number is at the rate of 3·2 per 1000 of population, as compared with 3·9 which was the rate in 1894.

DEATH-RATE FROM PHTHISIS.—There were 14 deaths caused by Phthisis, being at the rate of 1·6 per 1000 of population.

Among these are the deaths of two visitors, so that the Phthisis death-rate among residents was 1·4 per 1000 of population.

During 1894 the Phthisis death-rate among residents was 1·9 per 1000.

DEATH-RATE FROM THE CHIEF RESPIRATORY DISEASES. — The chief Lung diseases were the cause of 16 deaths, or at the rate of 1·9 per 1000 of population.

Of these deaths one was a visitor, so that the death-rate from the chief Respiratory Diseases among residents was 1·7 per 1000, being the same rate as during 1894.

The birth-rate in 1895, though higher than that of 1894, was still a low one.

The general death-rate was also low, though slightly higher than in 1894. We find that the mortality among aged persons, and from the chief Respiratory Diseases, was low. The Zymotic death-rate and that among infants was higher than usual. This is to be accounted for by a considerable number of deaths from Diarrhoea among infants during the months of August, September, and October. The deaths from other forms of Zymotic diseases are considerably below the average.

INFECTIOUS DISEASES.—There were notified during the year 37 cases of infectious disease, as compared with 38 during 1894.

These were as follows:—

Scarlet Fever	..	..	..	24 cases
Typhoid Fever	..	..	..	7 „
Diphtheria ..	:	..	..	3 „
Puerperal Fever	..	..	..	2 „
Erysipelas ..	..	..	..	1 „

Of these cases, 21 were isolated promptly in Hospital, which Institution rendered excellent service in arresting outbreaks of disease as soon as they were recognized.

The Scarlet Fever cases occurred mostly during June, July, and August. Several of these were visitors, who brought the disease with them. Only one case out of 24 proved fatal.

In two of the Typhoid cases the possible origin of the disease was found in supplies of water outside the town which were open to contamination.

One case of Diphtheria had a possible source of introduction through the medium of a cat, while in another case it supervened after an attack of Scarlet Fever.

WATER SUPPLY.—The supply of water for the town proper has been ample throughout the year, but in order to provide for the increasing need of the town, and the high-lying houses on the slopes of the Great Orme, it has been decided by the Authority to lay down a larger main (15 inch) from the intake down to the town. This

extensive work is to be completed in four years, and is calculated to increase the water supply for the town to an extent sufficient for the needs of the next thirty years at least.

During the year new water mains have been laid in thirteen streets, and old mains have been replaced by new in one street, the total length of new mains being 1835 yards.

SEWERAGE.—Improvement has been effected in the sewerage of parts of the town, by the replacing of the sewers in four roads by new sewers, with a total length of 811 yards.

Contracts for constructing a relieving sewer and a new outfall have also been let. The relieving sewer is to relieve the pressure in the town proper, and to take the sewage from the Craig-y-don and Craigside districts (about one quarter of the town).

NEW OUTFALL SCHEME.—The new outfall sewer which is now being laid consists of iron pipes 27 inches in diameter, instead of the existing 21 inch pipes. The outfall will be placed about 100 feet further towards deep water than the present outfall.

These improvements in the sewerage of the district are to cost £10,923.

The present system of disposing of the surface water of the town has been extended at a cost of £2096.

HOUSING OF THE WORKING CLASSES.—The question of the housing of the working classes has engaged the serious attention of the Authority during the year. A special committee has been appointed, and designs for building suitable cottages have been adopted. Considerable difficulty has been experienced in obtaining the necessary land, but this has now been overcome. A loan to enable nineteen model cottages has been applied for, and the contract to build has now been let. This is a new departure in North Wales, and one which may be warmly commended to the notice of other Sanitary Authorities.

NEW METHOD OF SCAVENGING.—The Authority has taken a decided step in advance by organizing a new system of scavenging the district. Each house is now supplied with a galvanized iron covered bin for house refuse. These bins are regularly called for and the contents removed. By adopting this system of removal of refuse, the Authority are enabled to do away with the large insanitary ashpits which used to be in vogue. This will go a long way towards ensuring pure air in the back-yards and crowded back streets of the district.

It has now been decided to erect a destructor, so as to dispose of the town refuse and do away with the necessity for a tip as at present. The destructor is proposed to be erected in conjunction with a scheme for supplying the town with electric light.

MILK SUPPLY.—The milk supply of the town has been constantly supervised by the Authority during the year.

The dairies supplying the milk are visited by the Inspector once a fortnight. The Authority has also requested the co-operation of the Rural Sanitary Authority in carrying out the provisions of the Dairies, Cowsheds, and Milkshops Order.

SLAUGHTERHOUSES.—The slaughterhouses of the town, nine in number, are inspected once a week. Steps are being taken with a view to the provision by the Authority of a public abattoir, which would be an undoubted benefit.

BAKEHOUSES.—The bakehouses, 25 in number, were the subject of a special report to the Authority. In nearly all cases these were found to be satisfactory. They are visited once a fortnight by the Sanitary Inspector, and the special provisions of the Factories Acts relating to bakehouses insisted on.

Sanitary Inspector's Record during the year 1895.

No. of houses examined	..	..	..	..	1379
No. of orders given for the sanitary amendment of houses or premises	..	..	..	..	120
No. of houses or premises cleansed, repaired, or whitewashed	..				3
No. of houses disinfected or supplied with disinfectants	..				10
No. of house drains repaired, cleansed, or trapped	..				67
No. of house drains ventilated	..	..	..		77
No. of privies and W.C.'s new provided	..	..	..		15
No. of do. do. repaired	..	..	..		83
No. of W.C.'s supplied with water	..	..	..		10
No. houses provided with a water supply	..	..	..		6
No. of animals removed	..	..	..	..	none
No. of seizures of diseased meat or food	..	..	..	..	none
No. of legal proceedings taken	..	..	..	..	none
No. of houses closed as unfit for habitation	..	..	..	..	none

COLWYN BAY RURAL SANITARY DISTRICT.

Area	..	...	5,231 acres.
Population, Census 1881	..	..	2,418
„ „ 1891	..	..	4,754
Estimated population, June, 1895	..	..	5,727

BIRTH-RATE.—The number of births registered during the year was 105, this number being at the rate of 18·3 per 1000 of population. During 1894 the birth-rate was 24·0 per 1000.

DEATH-RATE.—From all causes, 93 deaths were registered, being at the rate of 16·2 per 1000 persons living. Of these, 13 were stated to be visitors. The remaining 80 deaths were at the rate of 13·9 per 1000 persons living, which is, therefore, the general death-rate among residents. The gross death-rate during 1894 was 13·4 per 1000, and the death-rate among residents was 11·1 per 1000.

ZYMOTIC MORTALITY.—To the chief Zymotic diseases were ascribed 8 deaths, or at the rate of 1·39 per 1000 of population. The Zymotic Mortality in 1894 was 0·36 per 1000.

Of these deaths 3 were caused by Diarrhœa, 2 by Diphtheria, 2 by Enteric Fever, and 1 by Whooping Cough.

INFANTILE MORTALITY.—Among infants under one year of age there were 17 deaths, or at the rate of 161 per 1000 registered births. During 1894, the Infantile Mortality was 106 per 1000 registered births.

MORTALITY AMONG PERSONS AGED 65 AND UPWARDS.—There were 25 deaths among persons at this period of life, or at the rate of 4·3 per 1000 of population. During 1894, the death-rate at this period of life was 3·6 per 1000.

PHTHISIS DEATH-RATE.—Phthisis was the cause of 10 deaths, being at the rate of 1·7 per 1000 of population. Of these, 4 were deaths of non-residents, so that the Phthisis death-rate among residents proper was 1·0 per 1000. During 1894, the Phthisis death-rate was 2·0 per 1000.

DEATH-RATE FROM THE CHIEF RESPIRATORY DISEASES.—The chief Lung diseases were the cause of 12 deaths, or at the rate of 2·2 per 1000 of population. Of these, 2 were deaths of non-residents. The remainder were at the rate of 1·7 per 1000. During 1894 the death-rate from the chief Lung diseases was 1·6 per 1000.

The vital statistics show that a low birth-rate prevailed during the year, and that the general death-rate was also low. The rise in the general death-rate, as compared with the exceptionally low death-rate of 1894, is chiefly to be attributed to a rise in the Infantile Mortality. Zymotic Mortality, and, to some extent, the other classes of disease, The death-rate from Phthisis showed some improvement upon that of 1894.

INFECTIOUS DISEASE.—During the year, 40 cases of the usual notifiable diseases were reported, besides 10 cases of Whooping Cough, and 19 of German Measles.

These 40 cases were as follows :—

Scarlet Fever	..	..	..	25 cases
Typhoid Fever	..	..	..	8 „
Diphtheria	..	..	..	4 „
Measles ..	..	..	..	1 „

The cases of Scarlet Fever mostly occurred during the month of May. In the previous year a similar outbreak occurred about the same time. A considerable proportion were pupils in private schools, and it is probable that the reassembling after the Easter holidays accounted for the spread. As the chief private schools are provided with accommodation for isolation purposes, it was possible to isolate the cases satisfactorily. The heads of the schools affected gave every assistance in carrying out the necessary preventive measures. The disease, fortunately, was kept from gaining much headway among the private houses of the town, otherwise it is to be feared that an extensive outbreak would have occurred, owing to there being little or no provision for proper isolation purposes in many houses. None of the cases proved fatal.

The cases of Typhoid Fever occurred chiefly during September and October. In two of these, the illness was contracted in outside districts. In two others, insanitary conditions were discovered on the premises. One was a case in a part of the district where some previous cases had occurred two years ago.

The four patients attacked with Diphtheria all lived in different houses, from which the disease did not spread. In one case, the disease was probably brought home by a sister from a distant hospital.

The cases of German Measles were mild in character, but the same preventive measures were directed as if they were cases of Scarlet Fever. They occurred mostly during May and June.

The necessity of an isolation hospital has been very evident during the year. Without one, the district is constantly exposed to the danger of serious outbreaks of infectious disease, and I earnestly hope that steps will as soon as possible be taken to provide one.

During the year much time and attention has been given by the Authority of this district to sanitary work. The continued rapid growth of the town has necessitated considerable extensions to the sewerage and water supply systems.

WATER SUPPLY.—During 1895 new water mains were laid in twelve streets or parts of streets. The total length was 1739 yards of new three inch and four inch mains. These extensions serve 63 new houses and 44 old ones. 624 yards of old mains were replaced by new pipes.

The district has been supplied during the year partly from the Llandudno mains and partly from the Cowlyd system.

SEWERAGE.—A new sewer about 315 yards long has been constructed to serve a considerable number of houses in the neighbourhood of Groes. This has been the means of doing away with numerous privies and defective cesspools. The sewerage system of the town has been improved by the construction of several manholes. Special attention has been paid to the flushing of sewers and drains in the vicinity of all cases of infectious disease.

SCAVENGING.—The district is now scavenged by the Council's carts and horses. This is a necessary step in the right direction, but a system of systematically removing house refuse at regular intervals has not yet been arranged for by the Sanitary Authority.

SLAUGHTERHOUSES.—The slaughterhouses of the district have been inspected, and notices served for cleansing and improving the same.

A noteworthy feature has been the carrying out of a special survey of all the Bakehouses, Dairies, Milkshops, and Cowsheds in the district. A careful report has been drawn up dealing with all these places, which are now properly registered and supervised.

Sanitary Inspector's Record for 1895.

No. of complaints received	..	..	..	103
No. of inspections of houses and premises	..	..	..	878
No. of orders given for the sanitary amendment of houses or premises	..	..	..	237
No. of houses or premises cleansed, repaired, or whitewashed				26
No. of houses or premises disinfected or supplied with disinfectants	..	..	..	13
No. of house drains opened, repaired, or trapped	..	..	..	114
No. of house drains ventilated	..	..	..	19
No. of W.C.'s new provided and privies abolished	..	..	..	7
No. of do. repaired	..	..	..	28
No. of W.C.'s provided with water	..	..	..	11
No. of houses provided with a water supply	..	..	..	63
No. of accumulations of manure, and refuse removed	..	..	..	12
No. of animals removed	..	..	..	8
No. of legal proceedings taken	..	..	.	4

VITAL STATISTICS FOR 1895.

Name of district.	Birth-rate per 1000 of population.	Death-rate per 1000 of population.	Zymotic Mortality per 1000 of population.	Infantile Mortality per 1000 of population.	Death-rate of persons aged 65 and upwards.	Phthisis death-rate per 1000 of population.	Death-rate from the chief Respiratory Diseases.
<i>Rural Districts—</i>							
Llanrwst ...	22.5	21.8	0.97	191	8.8	1.8	2.2
Bettwsycoed ...	24.6	20.5	0.74	174	7.2	0.93	1.8
Deudraeth ...	26.6	16.8	1.09	122	5.2	2.4	2.1
Glaslyn ...	34.4	19.8	...	113	7.7	1.4	3.5
Lleyn ...	22.7	17.9	1.27	114	8.0	1.9	1.7
Gwyrfai ...	27.6	20.0 } 20.3 }	1.01	163	6.1	2.0	2.8
Dwyran ...	21.7	16.4	0.32	166	7.2	1.9	3.2
Ogwen ...	23.6	19.3	0.42	150	5.9	1.4	1.4
Aethwy ...	23.6	17.6	0.22	105	7.6	1.3	1.8
Conway ..	28.9	21.0	1.78	157	7.5	0.99	2.1
Glan Conway ...	26.5	25.2	...	325	5.3	1.3	2.6
<i>Urban Districts—</i>							
Festiniog ...	34.8	21.3	1.36	161	4.7	1.0	2.5
Ynyscynhaiarn ...	24.4	19.1	0.9	136	6.4	2.3	2.3
Criccieth ...	21.4	22.7	0.65	242	7.1	1.3	3.2
Pwllheli ...	25.7	25.7 } 23.8 }	0.61	216	7.7	2.1	4.9
Carnarvon ...	27.2	20.3 } 19.2 }	1.03	140	6.1	1.7	4.6
Menai Bridge ...	22.3	24.7 } 24.1 }	...	52	7.6	2.3	4.1
Bangor ...	30.7	18.7 } 18.2 }	1.16 } 0.97 }	110	5.4	1.7	2.7
Bethesda ...	29.1	22.2	0.56	200	6.2	2.4	2.8
Llanfairfechan ...	21.4	15.6 } 14.0 }	0.39	125	5.4	2.3	3.9
Conway ...	36.0	26.9 } 24.1 }	0.56	251	7.1	1.1	2.8
Penmaenmawr ...	29.1	19.6 } 19.2 }	...	116	7.1	1.3 1.6 }	1.6 1.9 }
Llandudno ...	23.9	17.4 } 14.3 }	2.14	233	3.2	1.4 1.7 }	1.7 2.2 }
Colwyn Bay ...	18.3	16.2 } 13.9 }	1.39	161	4.3	1.0	1.7
Rural Districts ...	25.4	19.2	0.90	148	6.9	1.7	2.2
Urban Districts ...	27.7	20.2	1.02	163	5.5	1.7	2.9
All Combined Districts ...	26.4	19.6	0.95	155	6.3	1.7	2.5
England & Wales	30.3	18.7	2.12	161	...		

NOTE.—When two death-rates are shewn for a District, the lower of the two is the corrected rate.

METEOROLOGICAL OBSERVATIONS OF THE YEAR.

COLWYN BAY.														
Month.	Mean reading of Barometer.	Dry and Wet bulb temperature		Temperature in shade.		Mean Temperature in shade.	Mean amount of Cloud.	Rain.		Mean temperature in shade.	Sunshine.		Rain.	
		Dry.	Wet.	Maximum.	Minimum.			Amount collected in inches.	No. of days on which rain fell.		Hours.	Sunless days.	No. of days on which rain fell.	Amount collected in inches.
January	29.65	39.3	31.7	42.7	29.5	36.1	7.9	2.905	21	34.9	63	5	22	3.07
February	31.15	32.2	30.7	42.0	25.1	33.5	5.9	.31	5	31.1	94	4	7	0.41
March	26.43	42.8	41.1	50.1	36.4	43.2	7.3	2.96	15	42.7	127	1	19	3.47
April	29.86	49.3	46.5	58.4	40.4	49.2	5.8	4.565	10	47.3	180	3	14	2.83
May	30.10	57.7	52.3	65.5	45.3	55.4	4.3	.875	7	52.2	270	0	5	0.54
June	30.20	60.5	55.2	67.1	46.2	56.6	4.8	.685	7	56.9	273	0	7	1.10
July	29.70	60.6	57.8	65.6	52.2	58.9	6.3	3.34	16	59.5	196	1	15	4.94
August	29.85	60.8	57.3	67.2	54.9	61.0	6.4	1.64	13	60.3	160	2	17	2.07
September	30.15	61.6	58.3	69.1	53.4	61.2	3.9	1.47	10	61.4	221	1	5	0.73
October	29.83	47.3	45.5	53.9	41.9	52.9	7.0	5.08	21	48.0	78	3	22	5.94
November	29.84	48.2	46.1	53.2	42.5	47.8	6.5	4.89	15	47.0	51	9	15	5.46
December	29.68	42.5	40.7	47.2	36.8	42.0	8.0	2.51	17	41.6	41	8	19	1.87
Mean for the year	29.72	50.2	46.9	55.1	41.9	50.6	6.1			48.7				
Total for the Year								31.23	157		1754	37	167	32.43

Month.	LLANDUDNO.					BLAENAU FESTINIOG.		ROYAL OBSERVATORY GREENWICH.			
	Temperature in shade.		Rain.		Mean amount of Cloud.	Rain fall. Amount collected in inches.	Temperature in shade.		Rain.		Mean amount of Clouds.
			No. of days on which it fell.	Amount collected in inches.			Maximum.	Minimum.	No. of days on which it fell.	Amount collected in inches.	
	Maximum.	Minimum.									
January	39.3	32.2	22	2.51	6.0	4.98	37.7	19	1.62	6.9	
February	36.2	27.3	6	0.46	5.0	0.83	35.2	4	0.22	5.8	
March	47.2	37.8	21	3.46	6.8	11.85	51.1	19	1.43	6.5	
April	52.8	41.9	15	2.39	5.3	7.12	57.2	12	1.25	6.8	
May	60.7	47.4	6	0.42	4.0	0.45	67.5	6	0.45	4.2	
June	64.6	51.3	9	0.89	5.5	1.42	74.1	8	0.20	5.7	
July	66.5	53.2	19	4.44	6.6	12.57	72.8	16	3.39	6.3	
August	66.2	55.2	19	1.79	6.5	11.71	73.0	15	2.14	5.2	
September	68.7	55.3	7	1.24	2.9	4.11	75.4	8	0.93	2.6	
October	52.7	43.9	24	6.28	6.2	9.37	54.2	15	2.69	6.5	
November	52.0	42.4	17	3.71	5.5	7.36	52.6	20	2.89	7.3	
December	45.2	37.7	21	2.33	6.4	8.12	44.3	19	2.51	7.6	
Mean for the year ..	54.3	43.8			5.5		59.9		41.7	5.9	
Total for the year ..			186	29.92		79.89		161	19.72		